In Two Sections—Section Two

MECHANICAL ENGINEERING

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A. S. M. E. AFFAIRS

The Secretary's Letter — The 1920 Annual Meeting — Professional Sections Activities — Report of Special Committee on Code of Ethics — Personals — Necrology — Employment Bulletin — Candidates for Membership

The Secretary's Letter

YOUR secretary has been continuously emphazing good citizenship as the fundamental motive for every professional engineer, as well as the fact that the expression of the engineer should be mainly in his contribution of his special talents to the benefit of society, carrying out the full import of the time-honored definition by Tredgold, namely, that "Engineering is the art of directing the great sources of power in Nature for the use and convenience of man."

As a result of his work in the war, the value of the engineer to the welfare of the nation, whether in peace or war, has become impressed upon the mind of the public.

The engineer is now in the position where he must make a concerted effort to live up to this impression in the years of peace by helping solve the great problems of peace.

It is particularly satisfying to see the following spirited foreword by Meredith Nicholson in the June *Cosmopolitan,* which by permission of that magazine we reproduce here.

America's need for leadership was never greater than now. Not in statecraft alone, but in things spiritual, in education and kindred departments of the social structure, the cry is for men.

"Produce great men; the rest follows," wrote Whitman. This is a large order, not so easily filled. The heavens bestow the consecrating fire warily upon poets, prophets, heroes and lawgivers. The hour and the man do not meet by chance but through the operation of laws we can only believe to be divine.

Nature is constantly experimenting to perfect a combination of elements against a definite need. In the hour of fiery trial, when faith is at the ebb and hope seems a mockery, some confident, cheering voice is sure to ring above the tumult, and the rout is turned to victory.

Always, somewhere, the masterful man is moving forward to keep tryst with Opportunity.

The standard of leadership is highest where thought is freest. Blind partisanship begets weak submission to dangerous or incapable leaders. Leaders may be trained only as we elevate the whole tone of the national life. There is truth in the common saying that we get in America just about the quality of government we deserve. The people of a village who are content with stupid or ignorant rule may not with complacency complain if the affairs of the nation are not managed to their liking. There is no better place for the development of leadership than the small town; and in the important business of improving the conditions of farm life, there is a constant cry for leadership.

It is an error to say that leaders are chosen. Rather it may be said that, responding to some inner prompting and conscious of their power, they arrive.

They step into their destined places with the inevitableness of fate, and the thousands catch step with them and press on joyfully, as to the heartening song of trumpets.

The stress in the above message is in the third paragraph from the end and the last three lines of that paragraph. Urging the citizen in his home town to develop leadership means making sacrifices of his time and energies for the service of his fellow-citizens without the hope of reward or even thanks and followed possibly by much complaint, because such is the path.

Nevertheless, unless the engineer is willing to assume such leadership he cannot attain a place in society, cannot be even regarded as a member of a profession, because in the final analysis the popular conception of a professional man is the same as the conception already formulated by the long-established professions to Medicine and Law, namely, his vocation is essentially a service to others.

The 1920 Annual Meeting

FROM the plans at present in process of preparation for the 1920 Annual Meeting of the Society, to be held in New York, December 7-10, it will be entirely safe to prophesy that it will undoubtedly be the most successful Annual Meeting the Society has ever held.

As the keynote session, the Committee on Meetings and Programs has chosen the subject of transportation and is in search of the biggest men in the country to consider and advance solutions for the problems of railroads, waterways, trucks, and terminals. A master of transportation is being sought to present the entire situation.

The newly formed professional sections are accomplishing much more than was expected of them, and six of them are making plans for very valuable sessions on their subdivisions of Mechanical Engineering. The Professional Sections on Fuels, Management, Machine Shop, Power, Railroads, and Textiles are stimulating the best talent in their consideration of the vital problems of their respective fields, and are arousing enthusiasm in their sessions to be held at the 1920 Annual Meeting.

The need for better engineering in woodworking has been felt by some members of the A.S.M.E. for a considerable time. A subcommittee has therefore been appointed by the Committee on Meetings and Programs to develop a session on this subject for the Annual Meeting. The tentative program forecasts a mighty interesting event. Mr. Thomas D. Perry of Grand Rapids, Mich., is chairman of the committee, and his two collaborators are Messrs. C. E. Paul, of Chicago, Ill., and Grant B. Shipley, of Pittsburgh, Pa.

The interest in Appraisal and Valuation displayed at the 1919 Annual Meeting and the 1920 Spring Meeting will be sustained by a session on this subject. At the St. Louis Meeting the Appraisal and Valuation session voted for the appointment of a committee whose duties would be to study all papers presented before the A.S.M.E. on this subject, to prepare a résumé of the subject-matter given and procure additional papers for a session at the 1920 Annual Meeting. This committee has been appointed, but acceptances have not been returned. It is anticipated that its

work will result in an Annual Meeting session attractive to every engineer interested in this subject.

A number of fine papers have been received by the Society which do not fall under the subdivisions of any of the professional sections. The best of these papers will be presented at general sessions of the Society.

Professional Sections Activities

Power Section Elects Officers

A letter ballot has recently been taken for the purpose of selecting officers of the Power Section, and the following have been elected:

Chairman.....A. D. Bailey
Vice-Chairman.....A. G. Christie
Secretary.....W. B. Gregory
Executive Committee.....C. W. Wilder

Plans for future meetings of the Power Section have not as yet been made, The Executive Committee, however, will convene at an early date and will then plan its Special Committees. Sessions for the Annual Meeting will also be outlined at that time.

Railroad Section Plans Joint Meeting

The Railroad Section in coöperation with the Society's Metropolitan Section and the New York Section of the American Institute of Electrical Engineers will hold a joint meeting on the evening of October 22, 1920. The subject under discussion will be The Relative Advantages of Modern Steam and Electric Locomotives.

Four papers will be presented: two by steam-locomotive designers and two by electric-locomotive designers. The prepared discussion will be by six railroad operating engineers, three specializing in steam-locomotive operation and three in electric-locomotive operation.

The meeting of the Standing Committee on Meetings and Papers of the Railroad Section was held on July 29. W. L. Bean, chairman; G. M. Basford, vice-chairman; H. Gardner, P. N. Gilmore, H. S. Hammond, F. Urban, E. B. Katte, chairman of the Executive Committee of the Section, and Roy V. Wright, chairman of the Meetings and Program Committee of the Society, were present. Titles and authors of papers were selected for the Railroad Section Session to be held at the Annual Meeting in December.

The Standing Committees on Research, Information and Membership will be organized within the next month.

Materials Handling Section Holds Preliminary Meeting

On Friday, August 13, the first gathering of the Materials Handling Section was held in the Engineering Societies Building. The meeting was called to order by Robert M. Gates, acting chairman of the Section, who reported that the petition signed by 381 members for the formation of this section had been approved by the Council. Mr. Gates briefly outlined the field of the Section and indicated its great breadth and the variety of problems to be solved. W. N. Dickinson stressed two lines of action for the proposed section: First, to study carefully the entire field and determine the underlying principles of materials handling; second, to systematize the responsibility of handling so that the actual work of handling might be expedited. F. N. Feiker, vice-president, McGraw-Hill Publishing Company, gave a new viewpoint of the subject by sketching the importance of materials handling in every branch of industry. Mr. Feiker also spoke forcefully about the need of coördination of the work of this section with other societies handling similar problems. H. V. Coes, of Ford, Bacon and Davis, spoke of the need of educating the public to the proper consideration and use of materials-handling apparatus as a means of reducing preesnt abnormal costs. Mr. Coes moved that a committee of three, consisting of F. E. Lister, N. J. Penning and H. E. Whitaker, be appointed to nominate the officers of the Section. The meeting was then thrown open to discussion and suggestions and the problems to be solved by the Section were discussed informally and at some length.

The Section plans to get organized as quickly as possible so that it may immediately start its work holding meetings for the discussion of the very important problems in its subdivision. It is anticipated that the Section will assist in the preparation of the keynote session of the Annual Meeting which is to be on the subject of transportation.

Management Section Gets Under Way

"ENGINEERING is the science of controlling the forces and of utilizing the materials of nature for the benefit of man, and the art of organizing and of directing human activities in connection therewith." Such is the definition of engineering as written in the first paragraph of the preamble of the constitution of The Federated American Engineering Societies. It challenges our attention, for it separates the work of engineering into a science and an art, the former dealing with the forces and materials of nature, and the latter with human activities; but both are interwoven and directed toward the great objective, "the benefit of man."

From this enlarging view of the profession of engineering, it is not surprising that more of the members of The American Society of Mechanical Engineers registered for membership in a professional section to be devoted to the "human activities" side of their professional work, than in any other. On July 23 when an organizing conference was held, called together to take steps to form a Professional Section on Industrial Engineering, a total of nine hundred and thirty-seven members had signified their desire to join by registering at the Society's headquarters. The conference was called together by L. P. Alford, member of the special committee on Professional Sections. The members attending voted unanimously to present a petition to the Council for the formation of such a section, but changed the name used in the call to the Management Section. It was believed that the expression "Industrial Engineering" was too narrow to adequately indicate the scope of the work that such a section might and should do.

Under authority of the Council this petition was referred to the Executive Committee and has been voted upon favorably. Its text is as follows:

TO THE PRESIDENT AND COUNCIL:

Gentlemen:

Your approval is requested for the formation of a Professional Section to be known as the Management Section, to be inaugurated under the provisions of By-Law B47.

We recommend that this Section be established to organize the members of the Society and others who may wish to affiliate with them, who are interested in the art and science of management.

We recommend further that this Section be authorized to coördinate the activities of those members of the Society who are interested in the development of productive industry.

We recommend still further that this Section be authorized to cooperate with other societies and organizations having similar aims and objects.

We hope also that the Section may be appointed by the Council to be the agency for carrying out the recommendations of the Special Committee on Industrial Engineering as embodied in the report of this Committee now before the Council.

This petition is presented in accordance with the action of the Special Committee on Professional Sections taken at a meeting held on March 11, 1920, and a copy hereof has been sent to that Committee.

This petition is signed by 43 members of the Society, whose names are also on the list of the 937 members who have signified their intention of joining the Management Section when authorized.

Respectfully,

(Signed) L. P. ALFORD,
Member, Special Committee on Professional Sections, representing Management Section.

In opening this Organizing Conference, Mr. Alford called attention to the interest the Society has always had in the great field of Industrial Engineering and Management. This is evidenced in many ways: in papers in the Society's transactions and

in sessions held at both Annual and Spring meetings; in papers before local sections, especially the New York section; in the appointing last year of a Special Committee on Industrial Engineering and its report, which is now before the Council; and in the resolutions of the Committee on Aims and Organizations, which recommend that Industrial Engineering should be treated as a major subject in the Society's activities. He said that the purpose of the proposed section was to provide definitive organization in this field within the Society, and where possible to coöperate with other agencies having similar aims and objects, such as the Society of Industrial Engineers, The Taylor Society, the Industrial Relations Association of America, and the American Society of Safety Engineers.

In the discussion incident to the adoption of the petition, many comments were offered as to the work that the Section might undertake. It was pointed out that the art of management has no accepted nomenclature and no definition of terms. Thus a starting point in developing coöperation between the various Societies and organizations interested in Management, might be a study of nomenclature and definition, with a purpose of developing those that would be acceptable to the various cooperating bodies, and would come into immediate general use in both the current and permanent literature of Management. Still another suggestion came to the Section from the Research Committee, to the effect that when organized the Section might very properly take up a study of what might be called changes of administration. Two simple illustrations are these: The time cost of washing a window of a given size and under established conditions ought to be the same whether that window is in Boston, New Orleans, San Francisco, or Chicago; and again, the upkeep of leather belting under factory conditions must be capable of determination within narrow limits. These two are typical of a great mass of administrative changes that form a large item of the expense in industry and business. Should the Section be able to determine standards in these changes, they might be laying the basis for lower costs in the operation of industry and the carrying on of business.

Still another suggestion concerned cost accounting and is directed at the thought that the Section might undertake to develop a standard system in industrial and business cost accounting.

F. B. Gilbreth, on behalf of the Committee on Fatigue, of the Society of Industrial Engineers, invited the Section to add one of its members to his Committee, which is undertaking an extensive study of the causes of industrial fatigue and the means whereby it can be eliminated or lessened.

With a knowledge of the fundamentals and practice of management that has been accumulating during the past thirty years, and with the background of the influence that the A. S. M. E. has had through the papers and reports on these matters, there is every reason to believe that the Management Section will be able to undertake the work of major importance. Once a beginning is made to set up standards that will be generally adopted, the foundation will have been laid for a great professional superstructure. It is only when knowledge becomes organized and accepted as true, that it is in a position to be utilized to the best advantage in engineering and industry, so broadly speaking, the immediate task before this Section is to so develop its outline of activity and its committee work, that it will begin to organize the knowledge of management that we already possess for the benefit of the members of the A. S. M. E., as well as for the assistance of those who may be affiliated with the Section, or may be members of organizations that participate in the work. From this viewpoint, it is a program of service for the engineering profession.

To start the work of the Section in motion as rapidly as possible, an Organizing Committee was appointed, consisting of Wallace Clark, Chairman; I. A. Berndt, Carle M. Bigelow, Hugo Diemer and Sanford E. Thompson.

Report of Special Committee on Code of Ethics

ONE of the fundamental requirements of the Society singled out by the Committee on Aims and Organization was a Code of Ethics. We had had one for some years, but the delegates from the Local Sections who constituted the Aims and Organization Committee were not satisfied as to its effectiveness and their unanimous thought was for a revision of the old code, so the following resolution was passed:

Resolved, That it is the sense of this Committee that a short Code of Ethics of broad scope, general in character and positive rather than negative injunction, be prepared and that the same be enforced vigorously; and

That a committee of five on Code of Ethics be nominated by the President and confirmed by the Council who shall report back to the Society.

The Society agreed and the special committee was appointed. After several months of conscientious work, which included an examination of all the codes of all professional bodies in the engineering, architectural, legal and medical fields, the committee brought in the following report which is to be presented to the Society for final action at the Annual Meeting in December next. The Code is also to be referred to the Federated American Engineering Societies.

To the President and Council of The American Society of Mechanical Engineers:

Your Committee appointed on October 24, 1919, to consider a Code of Ethics for The American Society of Mechanical Engineers, submits the following report:

1 A Code of Ethics should be a brief, positive statement of the professional relations of engineers to the public, to their clients or employers, and to one another.

2 The Code of Ethics adopted by A.S.M.E. in 1912 is too lengthy a document, has not been continuously called to the members' attention, and is seldom consulted by them. It has also been strongly criticized for failure to state the engineer's interest in the public welfare. Your Committee recommends that the Code of 1912 be superseded by a briefer and more comprehensive one which can be reprinted at regular intervals in MECHANICAL ENGINEERING and can thus be kept continually before our members.

3 The new Code of Ethics should be common to engineers of every branch of the profession, and also to architects, whose work is closely associated with that of engineers. This universal adoption of such a Code would give it public recognition and support and would thereby make it better known and more binding and effective.

4 Your Committee therefore recommends that the new Code of Ethics be the joint effort of all the professional engineering and architectural societies; and that the Engineering Council or a similar joint professional body be requested to appoint a committee from all the Technical Societies to prepare this new common Code of Ethics, which can then be approved and adopted by The American Society of Mechanical Engineers.

5 If it is not desirable for certain reasons to press at the present time the question of a common Code of Ethics for engineers, your Committee submits the Code of Ethics, attached herewith, for your consideration. If a joint committee is formed, as recommended above, this tentative code may be turned over to such a committee as a starting point for their deliberations.

6 Regarding the administration of any Code of Ethics finally adopted by this Society, your Committee recommends that the President appoint a *Standing Committee on Professional Conduct* after any necessary provision has been made in the Constitution and By-Laws. The duties of this Committee shall be to interpret the Code of Ethics and any cases of questionable ethical conduct on the part of members that may be submitted to them and to report these interpretations to the Council. The Council may approve these interpretations or take such other action as may seem necessary or just. These interpretations should be published when submitted in MECHANICAL ENGINEERING for the guidance of fellow-members of the Society.

This Committee on Professional Conduct should be appointed by the President holding office at the time of the adoption of the Code and should consist of five members, one appointed for five years, one for four years, a third for three years, a fourth for two years, and a fifth for one year. Thereafter, the President then holding office should appoint one member annually to serve for five years and should also fill any vacancies that may occur for unexpired terms. All of these members should be over forty years of age. The Committee after appointment should elect its own Chairman and Secretary. This Committee shall investigate all complaints submitted to it bearing upon the professional conduct of any member and, after a fair opportunity to be heard has been given to the member involved, shall report its findings to the Council of the Society. This report may in some cases suggest certain procedure to the Council.

The Council should have power to act on the recommendation of the Committee on Professional Conduct, either (1) to censure by letter the conduct of the member who has acted contrary to the Code if the breach is of a minor character; (2) to cause the member's name to be stricken from the roll of the A.S.M.E. without a published statement; or (3) to strike the offending member's name from the roll of the A.S.M.E. and to publish in MECHANICAL ENGINEERING all facts connected with the case and on which this extreme action is based.

Respectfully submitted,

(Signed) ROBERT SIBLEY, San Francisco, Cal.
JOHN V. MARTENIS, Minneapolis, Minn.
H. J. HINCHEY, Atlanta, Ga.
CHARLES T. MAIN, Boston, Mass.
A. G. CHRISTIE, *Chairman*, Baltimore, Md.

February 17, 1920.

PROPOSED CODE OF ETHICS.

1 The mechanical engineer should be guided in all his relations by the highest principles of honor, of fidelity to his client, and of loyalty to his country.

2 His first duty is to serve the public with his specialized skill. In promoting the welfare of society as a whole he advances his own best interests, as well as those of the whole engineering profession.

3 He should consider the protection of his client's or employer's interests in professional matters his essential obligation, provided these interests do not conflict with the public welfare.

4 He shall refrain from associating himself or continuing to be associated with any enterprise of questionable or illegitimate character.

5 He can honorably accept compensation, financial or otherwise, from only one interested party unless all parties have agreed to his recompense from other interested parties.

6 He must inform his clients of any business connections, interests or circumstances, such as might influence his judgment or the quality of his services to his clients.

7 He must not receive, directly or indirectly, any royalty, gratuity or commission on any patented article or process used in the work upon which he is retained without the consent of his clients or employers.

8 He should satisfy himself before taking over the work of another consulting engineer that good and sufficient reasons exist for making the change.

9 He must base all reports and expert testimony on facts or upon theories founded only on sound engineering principles and experience.

10 He must not regard as his own any information which is not common knowledge or public property, but which he obtained confidentially from a client or while engaged as an employee. He is, however, justified in using such data or information in his own private practice as forming part of his professional experience.

11 He should do everything in his power to prevent sensational, exaggerated or unwarranted statements about engineering work being made through the public press. First descriptions of new inventions, processes, etc., for publication should be furnished only to the engineering societies or to the technical press.

12 He should not advertise in an undignified, sensational or misleading manner, or offer commissions for professional work, or otherwise improperly solicit it.

13 He should not compete knowingly with a fellow-engineer for employment on the basis of professional charges or attempt to supplant a fellow-engineer after definite steps have been taken toward the other's employment.

14 He should assist all his fellow-engineers by exchange of general information and valuable experience or by instruction through the engineering societies, the schools of applied science, and the technical press.

PERSONALS

CHANGES OF POSITION

HARRY DE LAPOTTERIE has resigned his position with the Townsend Company of New Brighton, Pa., to become industrial engineer of The Falls Rivet Company of Kent, Ohio.

WILLIAM D. CECIL has severed his connection as resident material inspector with the Baltimore and Ohio Railroad and is now connected with the Magnus Metal Company of St. Louis, Mo.

HENRY C. BERRIAN, formerly engineer of the engine scientific department, Federal Shipbuilding Company, Kearney, N. J., is now in the engineering department of the Newport News Shipbuilding and Dry Dock Company, Newport News, Va.

CHARLES ESTES WOOD, formerly teacher in metallurgy, University of Cincinnati, is now designer and craftsman with The Lunkenheimer Company of Cincinnati.

J. JACQUES STUNZI, plant study engineer of the engineering department of the E. I. du Pont de Nemours & Co., has resigned his position and accepted an offer as consulting engineer of the Lancaster Steel Products Corporation, a subsidiary of the General Motors Corporation.

NORRIS M. PERRIS, formerly engineer with the Aluminum Castings Co., Cleveland, Ohio, is now industrial engineer of the Industrial Management Council of the Rochester Chamber of Commerce, Rochester, N. Y.

JAMES A. NOXON, formerly with Du Pont Engineering Company, Janesville, Wis., is now superintendent, Rock Cut Stone Co., Syracuse, N. Y.

RALPH W. SHARTLE has resigned his position as master mechanic with the Wagner Electric Manufacturing Company, with whom he has been connected over five years, and has taken the position of general superintendent with the Wayne Manufacturing Company, St. Louis, Mo., manufacturing washing machines and household appliances.

CHARLES T. PORTER, formerly with the Naval Aircraft Factory, Philadelphia, Pa., is now associated with the Huff, Daland & Co., Ogdensburg, N. Y.

HENRY C. HOOK, who until recently has been associated with The Aluminum Castings Co., of Detroit, Mich., is now works manager for the Cone Automatic Machine Company, Windsor, Vt.

HERBERT H. VAN WINKLE has resigned his position as chief engineer with The Vogt Bros. Mfg. Co., of Louisville, and is now associated with The John H. McGowan Co., of Cincinnati, Ohio, in the capacity of chief engineer.

HOWARD TILSON has left the employ of the Celluloid Company and is now in charge of production at the Monroe Calculator Company, Orange, N. J.

LOUIS A. DELANEY, formerly mechanical engineer with F. X. Hooper Co., Glenarm, Md., is now manager of the American Sheet Metal Corporation of Philadelphia, Pa.

ROBERT G. GUTHRIE, formerly sales engineer for the Wood Equipment Company, Chicago, Ill., is now with The Widney Test Laboratories of Chicago as director of tests, in charge of important research and testing.

CHARLES J. PILLIOD, formerly with the Pilliod Co. of Swanton, Ohio, is now general manager of the Locomotive Appliance Company of Toledo, Ohio.

GEORGE H. HARTMAN, who until recently was with the Willys-Overland Co., is now connected with the Locomotive Appliance Co. as mechanical engineer, with offices at Toledo, Ohio.

CHARLES H. DAY has severed his connection with the Grasselli Chemical Co. of Cleveland and is now in charge of the Steam Heating Department of the Cleveland Electric Illuminating Co.

NECROLOGY

FRED A. SHORT

Fred A. Short, mechanical engineer, Stone & Webster Corporation, Boston, Mass., died suddenly on June 28, 1920, of pneumonia. Mr. Short was born on May 30, 1883, in South Middleboro, Mass., where he received his early education, which was later supplemented by travel and special studies.

Mr. Short started work in 1901 with George Gray, consulting engineer, Providence, R. I., as a draftsman. From 1902 to 1907 he was with Fred S. Hinds, Boston, where he held the position of assistant equipment engineer when he resigned to travel for two years in Europe. There he devoted himself especially to the study of building construction and architctural design, together with cost production and labor. Upon his return to this country Mr. Short became connected with the B. F. Sturtevant Co., Hyde Park, Mass., in the mechanical designing of large apparatus in connection with heating and ventilating for all classes of building. In 1913 he became associated with the Stone & Webster Corporation, Boston, as chief checker. He was advanced through the positions of squad boss and estimator to equipment engineer on power and industrial plants. From 1917 to 1919 he was "loaned" to the engineering division of the Ordnance Department of the Army. In January, 1919, he returned to Stone & Webster as mechanical engineer.

Mr. Short became an associate-member of the Society in 1918.

JAMES H. MANNING

James H. Manning, superintendent of motive power, Delaware & Hudson Co., died in Albany, N. Y., on April 14, 1920. Mr. Manning was born in Cairo, Ill., on February 2, 1862, and was educated in the local schools. He entered the employ of the Union Pacific Railway in 1876 as a machinist's apprentice and was with that road until 1901, when he resigned from his position as division master mechanic to become associated with the Standard Pneumatic Tool Co., San Francisco, Cal. A few years previous to this change, Mr. Manning had invented a piston air drill which received considerable attention throughout the mechanical world. Later he was with the Featherstone Manufacturing Co., Chicago. In 1903 he returned to railroading, becoming assistant superintendent of motive power of the Canadian Pacific Railway, at Winnipeg, Manitoba, and having under his jurisdiction the territory between Winnipeg and the Pacific Coast. The following year he was appointed superintendent of motive power of the Delaware & Hudson Co.

Mr. Manning became a member of the Society in 1917. He was the first president of the Rocky Mountain Railway Club, which was organized at Denver, Colo., in 1900.

LYMAN HAMBRIGHT TREADWAY

Lyman H. Treadway, president of the Peck, Stow & Wilcox Co., Cleveland, Ohio, and Southington, Conn., died on December 7, 1919. Mr. Treadway was born on March 27, 1862, in New Haven, Conn., and was educated in the schools of that city. At the age of eighteen he entered the employ of the Peck, Stow & Wilcox Co. as clerk He was advanced through various positions in mercantile, industrial and financial departments, finally being elected to the presidency of the concern in 1911.

Mr. Treadway became an associate of the Society in 1917. He was president of the Cleveland Chamber of Commerce from 1907 to 1908.

EMPLOYMENT BULLETIN

THE SECRETARY considers it a special obligation and a pleasant duty to make the office of the Society the medium for assisting members to secure positions by putting them in touch with special opportunities for which their training and experience qualify them, and for helping any one desiring engineering services. The applications listed below combine the services of the Society and of the Engineering Societies Employment Bureau, Engineering Societies Building.

POSITIONS AVAILABLE

Stamps should be inclosed for transmittal of applications to advertisers; non-members must accompany applications with a letter of reference or introduction from a member; such reference letter will be filed with the Society's records.

DESIGNERS AND DRAFTSMEN familiar with Diesel engines either of the standard or solid injection types. Location New England. Z-1414.

PRODUCTION ENGINEER. Man with good technical knowledge, broad experience in up-to-date factories in quantity production. Must be first-class mechanic who can devise means and design small tools, dies and jigs and fixtures for producing small steel and brass parts cheaply in large quantities. One who has successfully operated an up-to-date production system. Consideration given only to letters specifying where employed last ten years, position held, name of the active head of the company and salary expected. Location Michigan. Z-1637.

MECHANICAL ENGINEER to have charge of several branch houses of engineering firm. Must be familiar with all kinds of machinery. Should have sales and business ability. Must speak Spanish as he will have to consult Spanish engineers. Location South America. Z-1685.

PROFESSORSHIP IN STEAM AND GAS-ENGINE DESIGN in Eastern technical school. Subjects to be handled: steam-engine design, gas-engine design, machine design, boiler design, and truck design. Man of experience to become head of this department required. State experience, salary desired, age and training. Location N. Y. State. Z-1692.

INSTRUCTOR IN MECHANICAL ENGINEERING is needed in technical school in New York State. Subjects to be distributed throughout department. Excellent opening for one desiring to teach or for one desiring further study before entering practice. State experience, training and age. Z-1693.

INSTRUCTOR IN MECHANICAL ENGINEERING, for machine drawing and simple design, elementary steam engineering, and to work into short machine-shop course; assignment of work will depend upon experience. Can use graduate with at least one year of engineering experience or older man who has done some teaching. Give particulars with recent photograph. Location near New York. Z-1695.

ASSISTANT in engineering department of large spring manufacturer. Must be well versed in mathematics, especially the strength of materials. To handle experimental and research work in connection with automobile chassis springs. Location Pennsylvania. Z-1697.

PRODUCTION SUPERINTENDENT for small company manufacturing precision tools; high international reputation; located near Boston. Need to increase production facilities and improve methods. Graduate mechanical engineer preferred, 24 to 30 years of age, with at least year or two of experience with company manufacturing light, accurately-machined products in sufficient quantities to use systematic methods of production. Near Boston. Z-1700.

INSTRUCTOR in Steam and Gas Laboratory, duties to commence Sept. 23rd. Applicant must be a graduate of well-known technical school and should have had some experience in teaching laboratory work. However, men without teaching experience will be considered if other qualifications are satisfactory. Large state university in Middle West. Z-1703.

INSTRUCTORS for large university, in architecture, civil engineering, electrical engineering, mechanical engineering, theoretical and applied mechanics, physics and railway mechanical engineering. Location Middle West. Z-1701.

SALES ENGINEER with experience in sales work and having thorough knowledge of steam power-plant operation. Location Michigan. Z-1705.

SALESMAN with knowledge of Hand and Electrical Cranes. Write full information. Location New York City. Z-1707.

HEAD INSTRUCTOR for course in instrumental drawing and shop sketching, including all drawing and sketching required for courses in civil and mechanical engineering. Applicant should therefore be able to handle shop-drawing, machine design, structural drafting and topographical drawing. Teaching experience desirable, but not absolutely essential. Location New York City. Z-1710.

INSTRUCTOR to fill responsible position in high-grade technical institution in Mass. Subjects, electricity, physics and mathematics. Practical knowledge of electrical installations in textile plants desirable but not necessary. State fully experience, age, salary expected, etc., in first letter. Z-1711.

STRUCTURAL ENGINEER, 28 to 30 years, with thorough experience in design and erection of concrete, steel and wood structures. Permanent position. Location Ohio. Z-1712.

MECHANICAL ENGINEER, about 28 to 30 years of age, by manufacturing corporation, for general mechanical layout and installation work. Permanent position. Ohio. Z-1713.

ASSISTANT MECHANICAL ENGINEERS, technical graduates with 2 or 3 years' practical experience, for assistants to plant engineers in large industrial corporation. Must be a good draftsman. Location Ohio. Z-1714.

SALES EXECUTIVE, high-grade man to promote sales of heavy-duty scales. Must be 30 to 45, and technically educated along lines of mechanical engineering and construction; with ability to write concise, convincing letters. Actual selling experience will be helpful but not so essential as general knowledge of up-to-date factory methods. Good salary will be paid, the amount depending upon qualifications and adaptability of successful applicant. All applications wil be considered strictly confidential. Write for appointment for personal interview, stating qualifications. Location Ohio. Z-1716.

AUTOMOBILE-EQUIPMENT ENGINEER. Advanced type of technical training; considerable laboratory experience on starters and ignition systems. Location N. Y. City. Z-1732.

ENGINEER to make boiler machinery and power tests. Also make recommendations as to operation of plant as well as installing new devices and equipments. Knowledge in operation of power plants, as well as practical experience required. Must have tact to make tests and assist superintendent without arousing antagonism. Travelling position. Z-1741.

YOUNG CHEMIST to act as chemist and inspector in foundry, possibly college graduate of this last year who would be accurate enough for analysis of elements of iron and steel. Some experience in metallography would be of advantage. Good opportunity for young

man to expand and make himself useful which will be correspondingly appreciated. Location Ohio. Z-1746.

INSTRUCTOR in engineering drawing. Preferably graduate with some practical experience, who can handle classes in machine drawing and possibly descriptive geometry. Opportunity for outside work. Location Ohio. Z-1747.

ASSISTANT SUPERINTENDENT of engineering shops. Must be a mechanical-engineering graduate, of pleasing personality, executive ability, familiar with modern production methods, and preferably with teaching and practical experience along shop lines. Excellent opportunities for advancement to satisfactory man. Location Texas. Z-1748.

MECHANICAL ENGINEER to handle work along lines of building construction, special machinery, building of new power plant, etc. Location New Jersey. Z-1752.

INSTRUCTOR IN MECHANICAL ENGINEERING. Duties will be in machine design, heat engines, steam engines, etc. Preference will be given men of some experience either in teaching or practice, although experience is not an essential. Location Pennsylvania. Z-1753.

OPERATOR in cement plant. Must have some motor and operating experience in a. c. Good opportunity for right man. Location Montana. Z-1754.

HEAD FOR MECHANICAL ENGINEERING DEPT. Must be technical graduate with successful teaching and practical experience. Give record of education and experience, credentials and late photograph. Location Idaho. Z-1755.

ASSISTANT PROFESSOR OF MECHANICAL ENGINEERING. Location Kansas. Z-1756.

INSTRUCTOR, one who can take entire charge and responsibility, mechanical engineering, gas engines and machine design. Location Texas. Z-1759.

TESTING ENGINEER for oil-refining in New Jersey. Must have had experience in this work. Application by letter only. Location New Jersey. Z-1765.

MECHANICAL ENGINEER to take charge of engineering extension work for University in Middle West; practical as well as teaching experience desirable. Must also have had administrative experience in engineering education. Position will be on par with head of a department. Location Middle West. Z-1766.

INSTRUCTOR with engineering and practical qualifications along manufacturing and design of engines and hydraulic machinery; must be qualified to supervise training of apprentice mechanics and engineers; state age, compensation and synopsis of experience and qualifications; location Massachusetts. Z-1768.

INSTRUCTOR to teach mechanical laboratory and some classroom work in thermodynamics and applied mechanics. Applicant should have one or two years' experience at teaching or practical work. Location Baltimore, Md. Z-1784.

RECENT GRADUATES, M. E. preferred for research and drafting work. Good experience and opportunity. Location Pennsylvania. Z-1786.

INSTRUCTOR in mechanical engineering wanted. Should be particularly fitted to handle courses in machine drawing, and elementary machine design, though he would undoubtedly be used later in other courses, the policy being to distribute sections of required courses among various instructors as they are able to handle them. The position carries with it opportunity for advancement. Location Michigan. Z-1787.

YOUNG ENGINEER, with some experience in building mechanical equipment for handling materials and preferably one who has had some experience in organizing handling gangs to eliminate labor wastes. Position will likely lead to something good in the future and ought to be attractive to man anxious to enter this line of industrial engineering. Location Ohio. Z-1790.

SUPERINTENDENT for our barreling plant. Plant will barrel oil for domestic and export use, and will be a very modern and up-to-date plant in every respect. Require man of considerable experience and maturity, and to such man we will be willing to make very good offer if he can fill specifications. Location New Jersey. Z-1791.

PRODUCTION ENGINEER for company manufacturing full line of gas, coal and electric ranges. Preferably with technical training although not absolutely essential. Must be capable of completely organizing production system and possess full understanding of necessities of position. Excellent opportunity for right man. Location Ohio. Outline past experience and state salary expected to start. Z-1792.

GENERAL MANAGER for established steel stamping and rolling concern in New England. Extensive sales experience and superior executive ability necessary. State business and personal qualifications, education, experience, etc. Location Mass. Z-1793.

MACHINE DESIGNER, with experience and creative ability on development of complicated automatic machinery. American preferred, possessing enough ingenuity and intultion to be able to solve mechanical problems alone. Tool designers, plant, efficiency or production engineers need not apply. Write fully, giving age, experience and patents taken out, if any. Location New York City. Z-1798.

DESIGNER for automotive gas engine. Position involves considerable amount of development work. Should have at least 4 years' experience in this line. Location New York City. Z-1801.

ASSISTANT TO MANAGER of marine department of growing business wanted at once. Good appearance; about 25 years; a willing hard worker. Preferably college man with some sales experience. Salary according to experience. Fine opportunity for advancement. Location New Jersey. Z-1808.

TOOL SUPERVISOR, for large manufacturer of acetylene-welding equipment. Must be well versed in modern tool practice and be capable of supervising tool design and tool production. Location New Jersey. Z-1812.

ASSISTANT PROFESSORSHIP open for young man between 25 and 35 years of age to teach engineering mechanics, machine design and allied subjects. Applicant should have at least 2 years' experience as designing draftsman, or equivalent training. Location New Jersey. Z-1814.

TECHNICAL GRADUATE, to act as time-study man, and for intensive study of shop conditions. Prefer young man with several years' shop experience, part of it at least in time-study work. Give full details of education, experience and references. Location New Jersey. Z-1815.

SUPERINTENDENT, of steel foundry for company making electric-steel castings for furnaces. Location Pennsylvania. Z-1817.

ENGINEER college graduate; some experience in steam; man with power-plant experience will be more suitable. Duties will consist in engineering and making up of propositions to be sent to our foreign offices. Prefer single man, willing in case of need to go abroad. Location New York. Z-1824.

ASSISTANT TO CHIEF ENGINEER of manufacturing company making air-conditioning equipment. No objection to training right man. Technical education preferred. Position involves research of new fields and application of established principles. Age 25 to 40. Location North Carolina. Z-1826.

ENGINEER capable of designing cane-sugar plants. We have immediate prospect where cane-sugar company wishes to have plant redesigned. Should be of good personality and of gentlemanly appearance; perfectly familiar with type of design; able to talk to sugar men operating plant, discussing various changes for remodeling and able to talk Spanish. Prefer a younger man. Should be primarily an engineer, but should have some qualities of a salesman. Location Ohio. Z-1827.

POWER-HOUSE ENGINEER. Plant consists of 2-2500 kw. Curtis turbines with Stirling boilers and mechanical stokers. Position would be to look after boiler room primarily and all mechanical features of power house. Location China. Z-1831.

ENGINEER with mechanical training, preferably automobile experience, for work on development and application of special line of materials for gears and frictions. State age, experience and salary expected. Location Pennsylvania. Z-1832.

DESIGNERS, high grade, with some field experience for heating and ventilating, plumbing and electrical installations in office, factory and general industrial buildings. Foreign service with large American interests. Good personality essential. Three year contract if desired. Location Foreign Service. Z-1838.

PRODUCTION ENGINEER for large typewriter company, thoroughly posted on modern production-control methods. Not necessarily from mechanical point of view but more for use and application of system in controlling production from ordering of material to assembly of product. Age 30 to 40, married man preferred. Location Connecticut. Z-1849.

TECHNICAL GRADUATE desired for instructor in mathematics in engineering college. Must have some advanced work in mathematics. State age, education, experience and enclose recent photo if available. Location Minn. Z-1851.

PRODUCTION AND EQUIPMENT EXECUTIVE. Northern New Jersey manufacturer of medium and heavy machinery of considerable precision, wants young manufacturing man of very best shop training and experience. At first work will deal with maintenance and repair of machine-tool equipment, but must be satisfied that he has supervising ability of high order and that, if occasion arises, he could take superintendence of shop of 500 men, making varied and exacting product, and show splendid results. Give fullest information, including experience, present employer, compensation and expectations. Location New Jersey. Z-1852.

MECHANICAL ENGINEER familiar with quantity production on brass casting specialties. One with initiative to work out his own ideas with view to increase present production. Knowledge of foundry practice helpful but not absolutely essential. Executive ability essential. Salary commensurate with experience and ability. Excellent opportunity to develop into big job. Location N. Y. Z-1856.

ADVERTISING WRITER to take charge of technical copy and catalogs on pumps for large concern. Previous advertising experience desirable. Mining or mechanical graduate with at least 3 years' experience; 25 to 30. Good personality essential. Location New York City. Z-1857.

STEAM-POWER ENGINEER, in charge of power and power distribution in industrial plant manufacturing edible oil and soap stocks. Work would require thorough knowledge of boiler-room practice, steam distribution, heat transfer, condenser practice, the elements of refrigeration and the application of general knowledge of thermodynamics and steam engineering to the use of saturated and superheated steam in oil-refining process. Power is secondary to steam in this plant, although some knowledge of 3-phase, 60-cycle a. c. applications at low voltage would be required. Location Va. Z-1859.

MECHANICAL ENGINEER, capable of taking leading part in our engineering department as a designer and checker, for manufacturer of high-grade light-hoisting machinery for auto trucks, power presses, railroad coaling stations, and general line of structural steel work. Location Michigan. Z-1866.

MECHANICAL DRAFTSMAN, Laurentide Co. at Grand 'Mere, Quebec, 90 miles north of Montreal; a large and progressive pulp and paper manufacturing concern offers good opportunity of advancement, with excellent living conditions, to experienced draftsman on general layout of buildings and machinery. Address communications, stating age, qualifications and experience. Z-1869.

YOUNG MAN to take charge mining and crushing operation under general superintendent. Graduate engineer, 2 or 3 years' experience, preferably with quarry and road preparation. Work is in connection with Mica mining. Location N. H. Z-1867.

MECHANICAL OR ELECTRICAL ENGINEER, technically trained preferred, to fill position as office engineer. Must be familiar with modern practices and operation of central stations. Location Missouri. Z-1873.

PRODUCTION SUPERVISOR, mechanical engineer with experience in production line, must be able to organize department and establish modern methods of control. Permanent, good future. Location New Jersey. Z-1876.

ASSISTANT SUPERVISOR for printing department of large corporation. Must have experience in printing technique and be familiar with office management, as work will consist largely of forms, papers, etc., for modern office systems. Age 29 to 40. Location New York State. Z-1875.

MEN AVAILABLE

Only members of the Society are listed in the published notices of this section. Copy for notices should be on hand by the 10th of the month preceding data of issue and should be limited to 45 words. The form of notice should be such that the initial words indicate the classification. Notices are not repeated in consecutive issues.

POWER-PLANT ENGINEER, can lay out, build and operate power plants of all kind. Location Southwest. SM-5461.

WORKS ENGINEER, SUPERINTENDENT OR MASTER MECHANIC with 15 years' practical and theoretical training in general machine-shop, foundry, sheet-metal and structural work. Specialist in power-plant and industrial engineering. Past experience in railroad shops, chemical plants and textile plants. Good executive and can get results from various classes of mechanical labor connected with above plants. Married, 32, salary commensurate to position, minimum consideration $4000. SM-5462.

MECHANICAL AND ELECTRICAL ENGINEER, technical graduate, desires position as assistant to executive; five years' practical experience, two years as assistant manager of small manufacturing concern. Wants change because present position does not provide opportunities for use of own judgment or initiative. Location immaterial. SM-5463.

PRODUCTION ENGINEER, young, energetic, mechanical-engineering graduate, past two years as production manager in small manufacturing plant; well versed in storekeeping, planning and allied functions; familiar best modern methods of scientific management; varied engineering experience. Minimum $2700. SM-5464.

MECHANICAL ENGINEER, graduate M. I. T., 28, experienced in developing automatic machinery and improving manufacturing processes. At present employed by firm of consulting engineers. Desire position vicinity of New York City. SM-5465.

MECHANICAL ENGINEER, technical graduate, 25, single, desires position in South America. Some knowledge of Spanish. Three years' experience in maintenance work, also some sales experience. SM-5466.

MECHANICAL ENGINEER AND EXECUTIVE, 32; thoroughly experienced in modern production methods of interchangeable parts in volume. Thorough knowledge and practical understanding of industrial engineering and its proper application. Practical experience in designing of automatic machinery, tools, jigs, and fixtures. SM-5469.

MECHANICAL OR WORKS ENGINEER, eleven years' experience in design, maintenance, construction and production. Good organizer and executive. Technical graduate, 33, married. SM-5470.

MECHANICAL AND ELECTRICAL ENGINEER, 36, two years' civil engineering, six years' mechanical and electrical university course; 14 years' engineering experience, including construction of industrial plants, locks and dams, ship yard, powder plant, rifle plant and armor-plate plant, comprising installation of hydraulic, steam, air and electrical machinery. Thoroughly practical with executive ability; not afraid of work or responsibility. No objection foreign service if salary is commensurate with position and location. Minimum United States, $4,000. Willing to enter into partnership with another engineer on equal basis. At present employed, but can arrange to make change on short notice. SM-5471.

MECHANICAL-ELECTRICAL SALES ENGINEER. Technical graduate, 31, single. Nine years' engineering experience; 4 years' shop production upon all types of internal-combustion engines and electrical machinery; 5 years' general engineering experience on steam and internal-combustion engines, power-plants, electric distribution, artificial and natural-gas distribution. Engineer with U. S. Bureau of Standards during war. At present field engineer for firm of mechanical and electrical engineers. SM-5472.

EXECUTIVE, young college graduate, 10 years' sales, manufacturing, executive experience, at present vice-president and manager of large manufacturing firm. SM-5473.

MECHANICAL ENGINEER, Diesel engines, 35, wishes to correspond with reliable concern, contemplating building marine Diesel engines. Ten years' foreign and domestic experience in above line. Fully capable to take complete charge of design and installation of marine Diesel engines and auxiliaries. Would entertain offers from concerns contemplating either buying license or building own design. SM-5474.

MECHANICAL ENGINEER, 24, married; two years' experience in design and installation of plant equipment, power plants and blast furnaces, desires position, preferably in Southern Ohio, along sales or plant engineering lines. Can furnish excellent references from present employer. SM-5475.

INSTRUCTOR OR ASSISTANT PROFESSOR OF MECHANICAL ENGINEERING. Technical graduate with five years of shop, drafting-room, research and teaching experience, desires position on faculty of engineering institution. Age 30, married, available September 15. SM-5476.

MECHANICAL ENGINEER, 12 years' experience in mechanical engineering, safety and personnel work; desires to connect with company willing to give him coöperation along this line. Capable of organizing and managing following departments: safety, dispensary, sanitation, welfare, employment, fire protection, and industrial relations. Particularly interested in connecting with new company just forming, but would consider other offers. SM-5477.

EXECUTIVE, technical graduate, successful experience as engineer, salesman, shop manager, auditor and corporation officer. Salary $7,500. East preferred. SM-5478.

MECHANICAL ENGINEER, and vice-president of large manufacturing company, with special duties in South Atlantic States. Twenty years' experience establishing and managing factories and agencies. Head office at Washington, D. C. Do you want part of his time to promote your interests in the South? SM-5479.

POWER ENGINEER AND EXECUTIVE, 18 years' experience design and construction power stations, heating and ventilating plants, railroad shops, supervision and operation electric-railway power equipment. Age 44, technical graduate. Available September. Location New York City or vicinity. SM-5480.

MECHANICAL ENGINEER, graduate, with shop-experience knowledge of cost accounting, etc., desires position as superintendent or works manager in West or Middle West. References. SM-5481.

ELECTRICAL AND MECHANICAL ENGINEER, technical graduate, 27, four years' manufacturing and maintenance experience, single, wants position with good future. References. Any location. SM-5482.

YOUNG MECHANICAL ENGINEER, 35, 12 years' practical experience on design and construction of special and automatic machinery and machine tools, capable executive, desires connection with reliable firm. Location immaterial. West or Middle West considered. Salary $3000 per year. SM-5483.

MECHANICAL AND COMBUSTION ENGINEER, American, age 27, technical graduate. At present assistant engineer with large steel company; desires connection with progressive firm. Congenial, wide-awake, good personality. Five years' experience in power-plant and heat-treating furnace work including design, testing and operation. Minimum $3300. SM-5484.

SALES ENGINEER, M. I. T., and engineering commission in Navy. Age 23, at present connected with large boiler concern. Desires connection with company marketing power-plant equipment or specialties. Location Western New York or New England preferred. SM-5485.

MECHANICAL ENGINEER AND EXECUTIVE, M. I. T. graduate; 4 years' experience in shipyard; 10 years' marine Diesel engine-building experience, principally on experimental, designing, and testing work; for several years past in charge. SM-5486.

MECHANICAL ENGINEER; 43. Wide experience on power-house work and combustion. Also building construction. Good executive. Desires location in or near Philadelphia. Available immediately. SM-5487.

MECHANICAL ENGINEER graduate, 27, two years' experience piping layout on heating and ventilating systems and power plants. Middle West location desired. SM-5488.

RESEARCH MECHANICAL ENGINEER and physicist, M.E. degree; with training and capacity for fundamental investigations in materials, processes, and instruments; best references; age 29; exceptional record of published work in technical and scientific press; specially qualified as director of research or development laboratory; salary $5000. SM-5489.

GRADUATE MECHANICAL ENGINEER, 3 years' practical experience on machine and erecting work, drafting room, designing steam turbines, Cent. pumps and condensers, estimating, shop orders. Informed on manufacturing methods, routing, shop costs. Age 25, married. Available Oct. 1, 1920. SM-5490.

DRAFTSMAN ENGINEER, experience in oil-well machinery; manufacture of 6″ shells and equipment for manufacturing same; general construction in large asphalt refinery. Graduate electrical engineer, wants to connect with company affording excellent opportunity for service, growth, and responsibility. SM-5491.

ENGINEERING EXECUTIVE, 15 years' experience on high-grade mechanical, structural, and combustion engineering, comprising steam and motor-driven pumps, hydraulics, hoisting, cranes, boilers, economisers, etc., for steel and industrial plants. Also planning and production work on large scale. Has held positions as chief draftsman and construction engineer and has been successful at sales work, with leading companies. Age 35. SM-5492.

MECHANICAL ENGINEER, technical graduate, age 25, married, desires position as assistant engineer on industrial work. Four years' experience estimating and design of plant installation, ordnance, etc. Present salary $2700. New York or vicinity. SM-5493.

MECHANICAL ENGINEER, 22 years' experience designing construction and executive commercial work. Stevens graduate. Well known in mining, crushing, metallurgical and cement-machinery fields. Desires responsible position. Location New York City. SM-5494.

ENGINEER OR CHIEF DRAFTSMAN, 10 years' experience; 30; technical graduate. Have successfully handled positions of chief engineer, chief draftsman and secretary and treasurer. Desire responsible position with progressive growing company with chance of advancement. $3500. SM-5495.

MECHANICAL ENGINEER AND EXECUTIVE, 31, technical and practical experience covering 15 years on design and manufacture of special automatic machinery, jigs, dies, fixtures and machine tools. Experienced plant engineer covering plant-layout repair and maintenance of buildings-equipment machinery, etc.; also knowledge of production methods, planning and scheduling. Desires opening where initiative and experience along above lines are wanted. SM-5496.

MECHANICAL ENGINEER, 35. Broad experience including design, production and sale of general equipment, etc., expert draftsman. Can handle correspondence, estimating, purchasing or installation work. Now in New York, desire position out-of-town. SM-5497.

ENGINEERING EXECUTIVE, 11 years' experience on industrial plant planning, construction maintenance and power development. Thoroughly familiar with modern manufacturing methods. At present in charge of engineering department of machinery-manufacturing concern. Age 33. Married. SM-5498.

ENGINEERING EXECUTIVE, about to be released from U. S. Army, desires connection with corporation in need of executive in connection with engineering production, standardization, etc., either on present products or development of new enterprises, designs, ideas, research, or systems. Thorough theoretical knowledge of engineering in its several branches coupled with years of experience. Position sought is somewhat above the average. Kindly give synopsis of proposition in first communication. Will consider propositions requiring only part-time services. SM-5499.

MECHANICAL ENGINEER, graduate, experienced in design and manufacture of machinery. Capable of building up and maintaining efficient organization. Desire position requiring broad-gage man who knows human and business sides of engineering as well as purely technical. Past experience principally with mechanical stokers, steam engines, Diesel engines, air compressors, steam turbines, reduction gears and other power-plant machinery including auxiliaries. $5000. SM-5500.

GENERAL SUPERINTENDENT, of large foundry and machine company desires change October 1. Twenty years' experience in charge of plants employing from 1000 to 5000 men. Excellent record. Salary at present $10,000. SM-5501.

MANAGING EXECUTIVE, 36, graduate M.E. Purdue; 13 years' managerial experience in manufacturing of brass and metal goods, plated-wares, precision tools, paper and paper products. Unusual record as producer and organizer for three well-known companies in U. S. A. and Canada; in general charge of entire product manufacturing and plant. Used to earning $8000. Seeks opening only where small investment or share of increased profits is permitted. SM-5502.

GRADUATE MECHANICAL ENGINEER, 45, experienced in steam-engine and turbine design, desires position as chief draftsman, designing engineer or research engineer, with company manufacturing power-generating machinery in quantity. SM-5503.

SALES ENGINEERS, two mechanical engineers plan to enter business as sales engineers for power-plant and allied equipment. One has 8 years' experience in consulting and sales engineering, the other 8 years' in industrial-plant maintenance. Correspondence is invited from manufacturers desiring representation in Kansas City territory. SM-5504.

MILL SUPERINTENDENT, or metallurgist, member, graduate, M. I. T., married, 31. Seven years' varied experience, largely in mill operation and metallurgical testing for concentration, ammonia leaching, and flotation. References from present emloyers. Available November 1. SM-5505.

CONSULTING MECHANICAL ENGINEER, specialist in design, construction and installation of labor-saving machinery. SM-5506.

FIRE-PROTECTION ENGINEER, 32, married. Technical school graduate. Eight years' experience; familiar with operation and testing of automatic-sprinkler systems and water supplies for same, fire pumps, hydrants, hose and water mains; laying out of watchman service. Location Greater New York or vicinity. SM-5507.

MECHANICAL SUPERINTENDENT, graduate M.E. with 17 years' experience in machine design and manufacturing. Special attention given to tools, stampings, automatic machinery and equipment for increased production. Qualified to take charge of designing force, superintend manufacture along modern economical lines; $3600. Brooklyn, N. Y., preferred. SM-5508.

SALES ENGINEER, 22, three years' experience drafting room of world-wide engineering corporation. Desire opportunity with house handling specialties where general knowledge of power-plant equipment will be of use. Salary offer and details in first letter. SM-5509.

MECHANICAL ENGINEER, 38, married; technical graduate, 18 years' experience in steam engineering reciprocating machinery and unaflow engines, as draftsman, designer, consulting engineer and inventor, desires suitable position in steam engineering, research or experimental. Good record and references. Resourceful, energetic and capable to take charge. Philadelphia or East preferred. SM-5510.

MECHANICAL ENGINEER, age 34. Technical graduate with seven years' experience in power-plant design, general operation, and combustion problems especially. Have made special study of power-station economics and can handle all phases of betterment work. Salary $4000. SM-5511.

MANUFACTURING EXECUTIVE, 20 years' experience as foreman and superintendent. Machine tools, type-setting machines, automobile parts. Economical and efficient tools, gages, and factory equipment a specialty. Have made modern production methods produce. Gladly furnish references and history of experience. SM-5512.

MECHANICAL ENGINEER, graduate M. I. T., '17, with three years' shop and engineering experience as draftsman and assistant to superintendent; desires position as assistant to engineer or executive. SM-5513.

MECHANICAL ENGINEERING AND MANUFACTURING EXECUTIVE, technical graduate, 4 years' machine-shop and drafting-room experience, 14 years in executive positions of responsibility with large corporations in plant layout, construction, maintenance, purchasing equipment, power, and economic factory management; 8 years with present connections, American, married, age 41. Middle West or far West preferred. Salary $5400. SM-5514.

MECHANICAL DIRECTOR, plant engineer or similar position. Technical graduate qualified to assume entire responsibility for the selection, design, layout, preparation of specifications, installation and subsequent operation of electrical and mechanical equipment. Employed during past five years as mechanical director by internationally known corporation to assist in development of required plant for manufacture of drycolors, intermediates, dyestuffs and heavy chemicals. Has handled big things, is constructive, knows details and while accustomed to large responsibilities will be glad to serve as assistant where opportunity also means niche in deep-rooted progressive organization. Location of minor importance. Available immediately. SM-5515.

M. E. GRADUATE, mathematician, very resourceful in devices, intimate knowledge of thermodynamics, 2 years' shop experience, 3 years' designing on heavy high-speed machinery, 2 years' testing on automotive engines and auxiliaries; looking for development work where analysing mind is required. Minimum $2400. SM-5516.

SALES ENGINEER, technical graduate, 31, single; 10 years' technical experience on mechanical and electrical power-plant machinery; gas and coke-oven plants. At present mechanical and electrical engineer with well-known consulting engineer. SM-5517.

SALES ENGINEER, 31, married; technical training, 13 years' experience in machine and tool designing; one year in power-house designing. Desires position with good mechanical concern dealing in machine tools. New York City or vicinity preferred. SM-5518.

ENGINEERING SALES EXECUTIVE, technical graduate, prime of life, experienced in engineering and manufacturing. Demonstrated ability in marketing high-grade and alloy-steel castings, alloy and tool steels, steel specialties, etc., over period of years. Familiar with heat treatments of same. Executive and administrative ability. Constructive sale promotion. presence and address. Substantial representation in every respect. $6000 one year's contract. SM-5519.

MECHANICAL ENGINEER, technical graduate, 30; 8 years' exerience engineering work, 6 years' designing and construction of heavy machinery, one year manufacturing of interchangeable parts, one year in business as distributor of electrical equipment. At present in charge of technical-engineering department. Desires to connect with growing concern as chief engineer, assistant chief or to enter an engineering firm as executive where selling and general business experience is in demand. $5000. SM-5520.

CHIEF DRAFTSMAN, now chief draftsman at large factory making high-grade specialty line similar to adding machine. Specialized in standardization work. Desires location west of Mississippi. Pacific Coast preferred. M. I. T. graduate. SM-5521.

MECHANICAL ENGINEER, 39, technical man with 16 years' practical experience on design, construction operating and testing of steam-electric power stations. Expert on steam turbines, condensers and boiler-room practice. Also manufacturing and commercial experience. Desires engineering executive position. Present position seven years. SM-5522.

HIGH-GRADE EXECUTIVE, 16 years' experience as general superintendent and works manager. Familiar with such products as electrical goods, brass novelties, automobile parts and fire-arms. At present engaged as works manager. SM-5523.

EXECUTIVE ENGINEER, experienced in building up, equipping, and operating tool and alloy-steel mills as well as steel-casting plant. Thoroughly familiar with administrative and sales department organization and expansion. SM-5524.

MECHANICAL ENGINEER, 45, married. World-wide experience extending over 20 years in the exportation of machinery, hardware, steel materials, metals, chemicals, raw materials, etc., seeks executive position in purchasing or export department with responsible manufacturers or exporters. SM-5525.

MECHANICAL AND ELECTRICAL ENGINEER; Columbia graduate, age 27, single. Five years' experience on construction work and in all departments of large electric-light and power company. Connection desired with consulting engineers or in mechanical department of industrial plant. SM-5526.

PROFESSOR OF MACHINE DESIGN, 10 years' successful experience teaching all branches of machine design, engineering drawing, descriptive geometry and mechanism. Five years' practical experience in designing machines. Position desired as head of department giving opportunity for developing and directing courses. Graduate M.E. East preferred. SM-5527.

ENGINEERING AND EXECUTIVE, excellent experience oil-burning boiler installations, turbines, and appurtenances marine engineering. Widely traveled and accustomed to responsibility. At present engaged, but desires position with broad business scope, progressive concern as executive, or representative. Eastern Section, England or France. Age 28. SM-5528.

MECHANICAL ENGINEER, 18 years' experience design, construction and operation of power plants, hydraulics machinery, industrial-building construction and familiar with the design and construction of machinery for the manufacture of chemicals. Can take charge of work and see it through to completion. Can organize a job. SM-5529.

INDUSTRIAL ECONOMIST, practicing in New York, desires association where his demonstrated ability to determine the technical and commercial soundness of existing and prospective enterprises may have full scope. Broad experience in business surveys management, organization, operation and accounting. Connection must be worth $12,000 annually with unlimited opportunities. SM-5530.

CHEMICAL ENGINEER, 27, Columbia, 1915. Five years in coal-tar distillation, construction, maintenance, operation, technical development. Desires connection with petroleum, refining or similar company offering opportunity for promotion to executive position in manufacturing department. Salary $3000. Available September 15. SM-5531.

GENERAL SUPERINTENDENT OR SUPERINTENDENT, 36; 18 years' experience from machinist, toolmaker, tool designer, chief tool designer, draftsman, chief draftsman, etc., to general superintendent. Practical experience, technical knowledge with executive ability. Location between Somerville, New Jersey, and Brooklyn, New York. Salary $5000. SM-5532.

MARINE ENGINEER, graduate M. I. T.; 20 years' executive and practical experience in maintainance, operation and construction of steam vessels. Held very important executive position in Government service during war. Lately demobilized and desires connection with established steamship company where executive and professional ability of highest quality

will be appreciated and adequately remunerated. SM-5533.

MECHANICAL ENGINEER, 29; seven years' experience; one year assistant engineer in operation of thirty plants; now employed as general manager of small factory. Some experience in sales work; familiar with general and cost accounting; competent to handle business and sales correspondence. Desires position as assistant to executive in larger organization. SM-5534.

LUBRICATION ENGINEER, and master mechanic. Wide experience in steel plant, turbines, engines and general machinery. SM-5535.

INDUSTRIAL ENGINEER and draftsman, 32, married. Twelve years' mechanical experience. Specializing in re-organization and general plant layout for production efficiency, routing, scheduling, time study, modern systems of mechanical transportation as used for economics and rapid production. Also actual experience with machine-shop equipment, foundry and millwrights, the design of labor-saving and safety devices, and practicability of working conditions in the factory. At present employed on layout mechanical equipment for a twenty-five million dollar rubber-tire plant. Available October 1. Quite familiar with design and construction of factory buildings. Desires to locate with organization having big opportunities for industrial work. SM-5536.

MECHANICAL ENGINEER, 36; technical graduate, specialist on power-plant operation, efficiency, combustion, uses of fuel oil, steam, air, testing of apparatus. Experienced in automobile-production engineering, ex-instructor in M.E. dept. of engineering college; selling in Mexico. French, Spanish, German. Available September 1. SM-5537.

GENERAL OR WORKS MANAGER; 20 years' manufacturing experience acquired as general manager, factory manager, chief engineer, and superintendent. Have successful record as executive. Especially qualified on factory construction, equipment organization, production and costs. Have placed several industries on paying basis. Technically trained, expert mechanic. SM-5538.

MECHANICAL OR PLANT ENGINEER, technical graduate, excellent executive; successful in handling all classes men; diplomatic and tactful; 18 years' experience in electrical and mechanical engineering including installation and maintenance, industrial-plant, power, heating and lighting layout; organization and production engineering, and purchasing. SM-5539.

WORKS ENGINEER, OR SUPERINTENDENT, technical graduate, 32, married; 6 years' experience as machinist, 2 years' as draftsman and designer, 4 years' as executive, (shop superintendent, efficiency engineer, mechanical engineer, asst. works engineer). Strong personality, good executive. Permanent position desired in Middle West. Minimum salary $4500. SM-5540.

MECHANICAL ENGINEER, technical graduate, member, 20 years' experience in designing and engineering work. Capable of directing and taking full charge of work. Desires responsible position. Salary $5000-$6000. SM-5541.

MECHANICAL ENGINEER, M. I. T., now employed; 5 years' experience in general plant engineering, maintenance and construction. Experimental and development testing of electric motors and works-management investigation. Desires position involving production and management with industrial concern. SM-5542.

PRODUCTION ENGINEER, desires position in Philadelphia; 28, technical graduate, 4 years of experience in planning, routing and scheduling in machine shops and following up the material end. SM-5543.

INSTRUCTOR IN MECHANICAL ENGINEERING required to teach mechanical laboratory and internal-combustion engineering. Engineering graduate with some practical experience desirable but not essential. $1800 for college year of nine months. Location Philadelphia. SM-5544.

MECHANICAL ENGINEER, technical graduate 1911, 33, married. Teaching and practical experience covering machine design, construction, manufacturing maintenance and repairs of steam, air and hydraulic machinery including pipe fitting and layouts. Energetic, resourceful, good personality and excellent references. Desires permanent position with progressive concern. SM-5545.

FACTORY SUPERINTENDENT, assistant; graduate mechanical engineer (evenings); 26; experienced in design of jigs, fixtures, dies and special machinery for interchangeable production; 10 years' practical all-round experience, desires position as assistant to production or factory superintendent. Location immaterial. Salary $300 per month. SM-5546.

ASSISTANT TO WORKS MANAGER OR TO SUPERINTENDENT. Capable young man; last 3 years chief draftsman with large New York manufacturing concern; 7 years' practical experience including design of tools, jigs, fixtures, gages, etc., modern labor-saving devices and factory arrangements; possesses inventive ability. Desire change with progressive firm. Location New York or immediate vicinity. SM-5547.

INDUSTRIAL ENGINEER, 25, married; college man with valuable practical experience in rate setting, special investigation, research, development, etc., desires position as assistant or head of efficiency department or as manager's assistant. Now employed by large nationally-known organization, has satisfactory reason for desiring change. SM-5548.

MECHANICAL ENGINEER, technical graduate, age 29; 4 years' industrial and public-utility engineering; 2 years' military engineering. Desires position with firm of industrial engineers; executive position in growing concern; or assistant to high executive. Good organizer, loyal, economical, and can maintain prestige and dignity of high office. Now employed, desires to leave Public Utility Work. Location immaterial. Salary $3600. Permission given to wire C. O. D. for complete record. SM-5549.

MECHANICAL ENGINEER, M. I. T. graduate, 27, married; experience in power-plant design and operation, oil refinery and industrial maintenance and construction, expert draftsman, executive ability, desires permanent connection in responsible position. Location Eastern States, preferably Massachusetts. SM-5550.

FACTORY MANAGER, SUPERINTENDENT, CHIEF ENGINEER; over 15 years' successful varied experience, including manager, covering practically all phases of manufacturing of highest grade lines. Now employed on important engineering work in plant of over 9000, and wishes relocation. Graduate engineer, American, 38, married. Minimum salary $6000. SM-5551.

CANDIDATES FOR MEMBERSHIP

TO BE VOTED ON AFTER SEPT. 18, 1920

BELOW is a list of candidates who have filed applications since the date of the last issue of MECHANICAL ENGINEERING. These are arranged geographically. Applications for change of grading are also posted. The total number of applications received and listed below is 386.

The Membership Committee, and in turn the Council, urge the members to scrutinize this list with care and advise the Secretary promptly of any objections to the candidates posted. All correspondence in this regard is strictly confidential. Unless objection is made to any of the candidates by Sept. 18, 1920, and provided satisfactory replies have been received from the required number of references, they will be balloted upon by the Council.

NEW APPLICATIONS

Alabama

HUTCHINS, AGASSIZ T., Superintendent Steam Plants, Alabama Power Co., Birmingham
LEWIS, CHARLES F., Plant Manager, Standard Portland Cement Co., Leeds

Arizona

DUNBAR, J. B., General Superintendent, Yuma Ice Electric & Manufacturing Co., Yuma
FAUST, PER A., Master Mechanic, International Smelter. Miami

California

BERCETCHE, FIRMO, JR., Draftsman, Union Oil Co. of California, Los Angeles
BOWLUS, GLENN H., Instructor Mechanical Engineering, California Inst. of Technology, Pasadena
DITTUS, FREDERICK W., Job Engineer, Standard Oil Co., El Segundo
DORWARD, GEORGE D., Dorward Engineering Co., San Francisco
ENOS, JOHN A., Secretary-Treasurer, Western Forge & Manufacturing Co., Los Angeles
GARY, CHARLES B., Ensign, U. S. Navy, U. S. S. Missoula, San Francisco
HOLDEN, JESSE N., Refinery Engineer, Union Oil Co., Oleum
IRVIN, LESLIE A., Chief Mechanical Engineer. Baker Iron Works, Los Angeles
KEESEE, WESLEY E., Mechanical Engineer, Wilshire Oil Co., Los Angeles
MAZURETTE, ALBERT J., Chief Engineer & Member of Firm, Wieland, Mazurette & Wieland. Modesto
MORELAND, GEORGE E., President and General Manager, Western Forge & Manufacturing Co., Los Angeles
RUSHTON, LEON E., Mechanical Engineer, State Department of Engineering, Sacramento
SMALL, ERNEST G., Lieutenant Commander, U. S. N., Senior Assistant Engineer Officer U. S. S. New Mexico, San Francisco
STEVENSON, WILFRED C., Chief Engineer, Pacific Portland Cement Co., San Francisco
WRIGHT, EDWARD P., Designs Engineer, Standard Oil Co., El Segundo

Colorado

MORSE, JAMES L., Professor Mechanical Engineering, Colorado School of Mines, Gloden

Connecticut

BAILEY, C. J., Checker, Lake Torpedo Boat Co., Bridgeport
BEAN, LAWRENCE G., Sales Engineer, The Bristol Co., Waterbury
BEHLER, EDWIN J., Chief Draftsman, Wescott & Mapes, New Haven
BLANCHARD, CHARLES H., Works Manager, Pratt & Cady Co. Inc., Hartford
BUTLER, WILLIAM L., Engineer, Heppenstall Forge Co., Bridgeport
GEORGE, STEPHEN A., Scovill Manufacturing Co., Waterbury
GOODRICH, MILES E., Assistant to Works Engineer, Richards & Co., Stamford
HART, WALTER H., Vice-President & General Superintendent, The Stanley Works, New Britain
HAVICAN, RAYMOND V., Technical Instructor, Yale & Towne Apprentice School, Stamford
LAWTON, FRANK W., Winchester Repeating Arms Co., New Haven
MAGARGAL, HEMAN C., Superintendent, Landers, Frary & Clark, New Britain
MARSHALL, ALBERT T., Chief Engineer, The Automatic Refrigerating Co., Hartford
PHILLIPS, EDWIN T., Superintendent of Power, Eastern Connecticut Power Co., Norwich
RAYMOND, JOSEPH F., Supervisor of Training & Apprentice Shop, Winchester Repeating Arms Co., New Haven

SCHENCK, WILLIAM A., Vice-President, The Bassick Co., Meriden
STEVENS, CLARENCE C., Chief Draftsman, The New Departure Manufacturing Co., Bristol
SULLIVAN, RAYMOND H., Superintendent of Methods, The Yale & Towne Manufacturing Co., Stamford
WOLD, ERNST P., Mechanical Engineer, Bridgeport Metal Goods Manufacturing Co., Bridgeport

Delaware

MOORE, MORTIMER J. P., General Arrangement Draftsman, E. I. DuPont de Nemours & Co., Wilmington

District of Columbia

BAILEY, ETHEL H. (Miss), Technicist, Navy Department, Bureau of C. & R. Aircraft Division, Washington

Georgia

McBURNEY, WILLARD B., Efficiency Engineer & Sales Engineer, W. B. McBurney, Atlanta

Illinois

ANKELE, MORITZ A., Chief Draftsman, C. & E. I. R. R. Oaklawn, Danville
BOARDMAN, CLARK C., Assistant General Manager, Western United Gas & Electric Co., Aurora
CARTER, J. H., Aluminum Ore Co., East St. Louis
CLAUSSEN, ARTHUR W., Assistant Engineer, Underwriters' Laboratories, Chicago
DRAKE, ERNEST A., Works Manager, Benjamin Electric Manufacturing Co., Chicago
HAGEMEYER, HENRY F., Sales Engineer, Doehler Die Casting Co., Chicago
HARDY, SIMEON J., Assistant to Mechanical Engineer, Booth Fisheries Co., Chicago
JACKSON, MAURICE M., Designing & Construction Engineer, The Lehon Co., Chicago
LINDBERG, AUGUST E., Chief Engineer, Moline Tool Co., Moline
McBRIDE, OLIN R., District Manager, Andrews Bradshaw Co., Chicago
MULDAUR, GEORGE B., General Agent, Underwriters' Laboratories, Chicago
SHOLTES, STEPHEN, Secretary & Chief Engineer, Wittenmeier Machinery Co., Chicago
STACK, J. W., Chief of Technical Staff, Standard Oil Company of Indiana, Chicago
STREICHER, IRVING H., Head of Drafting School, Cayne Trade & Engineering School, Chicago
WELTY, ALBERT B., Emerson Brantingham Co., Rockford
WETHERBEE, ASHUR U., W. A. Gilchrist, Chicago
WHARRY, MAJOR E., Teacher, Bradley Polytechnic Institute, Peoria

Indiana

BLAIR, GEORGE W., Chief Engineer & Woolen Mill Superintendent, Mishawaka Woolen Manufacturing Co., Mishawaka
BUTTERWORTH, HENRY L., Chief Draftsman, Alena Steam Products Co., Indianapolis
ROWAND, ELLWOOD M. JR., Engineering Assistant, N. Indiana Gas & Electric Co., Lafayette

Iowa

DAVIS, D. LOREN, Chief Draftsman, Teetor Adding Machine Co., Des Moines
HARRIS, CHARLES H., Electrical & Mechanical Engineer, Mississippi River Power Co., Keokuk

Kansas

MURRAY, WILLIAM H. G., Superintendent of Maintenance, The Solvay Process Co., Hutchinson
PHILBRICK, FREDERICK C., Assistant Works Manager, Morton Salt Co., Hutchinson

Louisiana

MARSH, RICHARD O., President, Port Barre Hardward Lumber Co., Port Barre
MEVERS, ROY E., Mechanical Engineer, Prather & Stephens, Baton Rouge

Maryland

HUBER, FREDERICK, Superintendent, Stoker Department, Flynn & Emrich Co., Baltimore
HUGHES, ADRIAN, JR., Superintendent Motive Power, United Railways & Electric Co., Baltimore
MARSHALL, WILLIAM, Maintenance Engineer, Davison Chemical Co., Baltimore
POOLE, EDWARD P., Supervisor of Shops, Baltimore & Ohio R. R. Co., Baltimore
WOOLLEN, CHARLES E., Supervisor Mechanical Equipment Installation, Consolidated Gas, Electric Light & Power Co., Baltimore
YOUNG, PERCY A., Vice-President & Mechanical Engineer, Y-Zer Corporation, Baltimore

Massachusetts

ARNOLD, LYMAN, Engineer in Charge of Transformer Department, General Electric Co., Lyman
BALCOME, SAMUEL E., Chief Steam Engineer, Graton & Knight Manufacturing Co., Worcester
BARTLEY, FRANCIS E., Sales Engineer, The Blanchard Machine Co., Cambridge
BODE, JOHANNES C. P., Chief Draftsman, Heald Machine Co., Worcester
BONNER, ROBERT P., C. H. Tenney & Co., Boston
BURKE, HENRY M., Mechanical Engineer, Mount Hope Finishing Co., North Dighton
CARTER, FREDERIC W., Engineer of Power, Maintenance & Construction, Gilbert & Barker Manufacturing Co., West Springfield
CLAMPIT, RALPH V., Draftsman, Rolls-Royce of America, Inc., East Springfield
DAVIS, ALLAN I., Production Engineer, James Hunter Machine Co., North Adams
DIETZ, LEWIS H., Assistant to Products Engineer, Walworth Manufacturing Co., South Boston
DINGENS, CARL L., Superintendent, American Pad & Paper Co., Holyoke
FELTON, GEORGE W., Chief Engineer & Works Manager, Crofoot Gear Works, Inc., Cambridge
GRINFIELD-COXWELL, J. EDWARD, Boston
HATFIELD, HARVEY C., Chief Engineer, Gillette Safety Razor Co., So. Boston
HILL, CHARLES H., Chemical Paper Co., Holyoke
JOHNSON, PAUL R., Engineer, American Steel & Wire Co., Worcester
KIVLIN, ALFRED P., North Attleborough, Mass.
LEAVITT, PRESCOTT A., Chief Engineer, Merrimack Manufacturing Co., Lowell
MAYER, JOSEPH, Industrial Engineer, National Industrial Conference Board, Boston
MAYOH, FRANK H., Mechanical Design and Development Engineer, National Blank Book Co., Holyoke
MEADER, RAYMOND F., The Whitin Machine Works, Whitinsville
MOREHOUSE, JOHN A., General Manager, Eagle Oil & Supply Co., Boston
MURRAY, GEORGE S., Cellugraph Engineering Corp., Boston
PEARSON, JOSEPH K., Assistant Mechanical Engineer, John A. Stevens, Lowell
ROBBINS, DONALD G., Engineer, Hornblower & Weeks, Boston
ROPER, WALTER F., Works Manager, Springfield Automatic Screw Machine Corpn., Fitchburg
SEITZ, RAYMOND V., Industrial Engineer, Cooley & Marvin Co., Boston
SINCLAIR, HARRY R., President, Worcester Stamped Metal Co., Worcester
SKERRETT, WILLIAM H. W., Assistant to Superintendent, Watertown Arsenal Foundry, Watertown
SMITH, LEONARD F., Assistant Superintendent, United States Envelope Co., Springfield
SMYTHE, JOHN J., JR., Management Engineer, Thompson & Lichtner Co., Boston
STURGES, HARRY A., Production Superintendent, Northway Motors Corp., Natick
WARREN, CHARLES B., Treasurer & Mechanical Engineer, W. Warren Thread Works, Westfield

Michigan

FINCH, FRANK R., Assistant Professor Engineering Department, University of Michigan, Ann Arbor
GILBERT, CHARLES T., Superintendent, Saginaw Manufacturing Co., Saginaw
GRISWOLD, THOMAS, JR., Chief Engineer, The Dow Chemical Co., Midland
HERZOG, JOHN A., Chief Draftsman, Reo Motor Car Co., Lansing
JOHNSON, SIDNEY E., Builder (Self), Redford
JUNE, ROBERT, Diamond Power Specialty Co., Detroit
MITCHELL, WILLIAM M., Assistant Superintendent, Board of Water Commissioners, Detroit
POTE, KENNETH E., Timken-Detroit Axle Co., Detroit
ROLAN, ANDREW A., Assistant Factory Manager, American Electrical Heater Co., Detroit
SEABROOK, CHARLES R., Chief Engineer, The H. M. Lane Co., Detroit
WEBSTER, WALTER G., Maintenance Engineer, Maxwell Motor Co., Inc., Highland Park
ZEDER, FRED M., Chief Engineer, The Studebaker Corp., Detroit

Minnesota

BUENGER, ALBERT, Mechanical & Electrical Engineer, C. H. Johnston, St. Paul
KELSEY, JOHN W., General Superintendent, Water Department, St. Paul
PRIEDEMAN, GEORGE W., Vice-President & General Manager, Minneapolis Ornamental Iron Co., Minneapolis
SAVAGE, ARTHUR H., President, Savage & Winter Co., St. Paul
TURNER, CLAUDE A. P., President C. A. P. Turner Co., Minneapolis

Missouri

McKINSTRY, FRANK Y., Designing & Construction Engineer, Gillespie & McKinstry, St. Louis
ROARK, JAMES E., Chief Draftsman, Smith & Sons Manufacturing Co., Kansas City
STOLZ, PAUL L., Superintendent, Smith & Sons Manufacturing Co., Kansas City

Montana

TORGERSON, ALFRED C., Manager, Torgerson Brothers, Billings

New Hampshire

BOSWORTH, NORMAN S., Engine Draftsman, Atlantic Corp., Portsmouth

New Jersey

BEAVEN, HARRY E., Assistant Service Engineer, T. A. Edison, Inc., W. Orange
BURGESS, ROBERT W., Tool Designer, International Motor Co., New Brunswick
CUNEO, ALBERT R., Jersey City
DEMANT, HANS W. C. J., Superintendent, Thomas A. Edison, West Orange
EASON, CLARENCE M., Vice-President, Hyatt Roller Bearing Co., Newark
ELDERKIN, ARTHUR T., Designing Draftsman (Marine), Submarine Boat Corp., Port Newark
ENGELMAN, HERMAN C., Estimator, Crucible Steel Co. of America, Harrison
FREDERICK, RHEUEL H., Chief Engineer & General Manager, Twinvolute Pump & Manufacturing Co., Newark
GARVIE, REUBEN, Jersey City
GLOVER, TRUMAN J., Chief Designing Engineer, Federated Engineers Development Corp., Jersey City
HARRIS, EUGENE E., The Controller Co., Inc., Arlington
JONES, WILLIAM F., Chief Draftsman, Geo. White, M.E. Jersey City
KENNEY, JOSEPH A., Designing Draftsman, Eagle Rock Manufacturing Co., Verona
KRAUSS, ARTHUR H., Engineer, Scientific Department, Federal Shipbuilding Co., Kearney
LAMB, ARTHUR W., Production Engineer, Riegelsville
LARR, ROBERT B., Head of Planning Department, Gould & Eberhardt, Newark
LOGAN, CHARLES N., Superintendent, Fuel Briquet Co., Trenton
OWEN, CHARLES D., Chief Engineer, Passaic Print Works, Passaic
PAYNTER, WILLIAM H., Resident Industrial Engineer, Johnson & Johnson, New Brunswick
STARK, WILLIAM D., Passaic
STEVENS, EDWIN A., JR., 2d Vice-President, Hoboken Land & Improvement Co., Hoboken
STOTT, JAMES M., Superintendent, The Baylis Co., Bloomfield
SUTER, FRANK F., Mechanical & Experimental Engineer, Empire Cream Separator Co., Bloomfield
SVIDLO, IVAN A., Tool Designer, Monroe Calculating Machine Co., Orange

TANIS, GILBERT B., Engineer, John W. Ferguson Co., Paterson
TILGHMAN, RICHARD H., Designing Engineer, Precision Instrument Co., Newark
UDERITZ, HARRY G., Draftsman, Boiler Works, Babcock & Wilcox Co., Bayonne
WALLACE, WILLIAM J., Managing Engineer, Motor & Generator Department, Sprague Electric Works, Bloomfield
WALTON, CHARLES W., JR., Ridgewood

New York

BARKER, HORACE C., Advertising Editor, "Machinery," New York
BARNES, LLEWELLYN T., Chief Draftsman, Neptune Meter Co., Long Island City
BARNES, ROBERT G., T. E. Murray, Inc., New York
BARTON, SAMUEL R., Engineer, The S. S. White Dental Manufacturing Co., Prince Bay, S. I.
BEADLE, WALTER J., National Aniline & Chemical Co., Buffalo
BLACK, DONALD R., L. W. F. Engineering Co., College Point
BORDZUK, WALTER S., Plant Layout Supervisor, Sperry Gyroscope Co., Brooklyn
BURNETTE, ALGERNON R., President, A. R. Burnette Corpn., New York
CARPENTER, HOWARD D., Mechanical Engineer, Hodgman Rubber Co., Tuckahoe
CARTER, ZENAS W., Manager, Material Handling Machinery Manufacturers' Assn., New York
CARTER, WILLIAM C., Accountable Officer & Property Manager, Rochester District Ordnance Office, Rochester
CHESLER, ISIDOR, Industrial Engineer, Eagle Pencil Co., New York
COLSON, ERIC G., Supt. and General Foreman, Ford Instrument Co., New York
CONNER, JOHN A., Senior Designing Draftsman, Dunlop America, Ltd., Buffalo
DALE, RICHARD, Assistant Plant Engineer, Shuttleworth Brothers Co., Amsterdam
DANCY, JASPER J., Assistant Supervising Engineer, American Chicle Co., New York
DAVIS, ARTHUR C., Mechanical Engineer, N. Y. Bridge & Tunnel Commission, Hall of Records, New York
DEVLIN, EDWARD J., Superintendent, The Flatbush Gas Co., Brooklyn
DICESARE, GEORGE E. N., Assistant Electrical Engineer, New York & Queens Electric Light & Power Co., L. I. City
DOELL, GEORGE E., Assistant Chief Inspector, E. W. Bliss Co., Brooklyn
DuBOIS, LESTER W., Superintendent, Henry DuBois Sons Co., New York
DUPUY, THOMAS F., Superintendent Buffalo Division, J. H. Williams & Co., Buffalo
DURBIN, PAUL C., Engineer, Celite Products Co., New York
DURBIN, WILLIAM O., Engineer of Tests, National Aniline & Chemical Co., Buffalo
EVANS, RANDALL E., U. S. Air Service, Mitchell Field
EVANS, RAYMOND S., Field Superintendent, Almirall & Co., New York
FERNALD, BENJAMIN G., Consulting Engineer, New York
FLICKINGER, CHARLES D., Chief Draftsman, M. H. Treadwell Co., Inc., New York
FOWLER, WILLIAM H., JR., Asst. Installation Engineer, De LaVergne Machine Co., N. Y.
FRANKLAND, FREDERICK H., Consulting Engineer, New York
GANNETT, MALCOLM F., Patent Attorney, Corning Glass Works, Corning
GINSBERG, JOSEPH C., Student Engineer, Worthington Pump Co., Buffalo
GOLDBERG, NATHAN L., Chief Draftsman,
GRAHAM, JOHN L., Consulting Mechanical and Supervising Engineer, Tupper Lake
GREENWOOD, FRANK E., Mechanical Engineer, Joseph H. Wallace & Co., New York
HARPER, WILLIAM J., Steam Engineer, Donner Steel Co., Inc., Buffalo
HENRY, CHARLES A., Draftsman, N. Y. Edison Co., New York
HERENDEEN, FREDERICK W., Secretary, National Boiler & Radiator Manufacturing Assn., Geneva
HESSE, OTTO H., Bronxville
HEWETT, THEODORE C., Assistant Engineer, H. H. Williams & Co., Buffalo
HIBBARD, HARRY H., Supervisor, Y. M. C. A. Technical School, Buffalo
HOERNER, JOSEPH F., Assistant Manager, New York Office, The Baldwin Locomotive Works, New York
HOFMANN, ADOLPH F., Vice-President and Treasurer, Porter & Hofmann, Inc., New York
HULSE, GEORGE E., Chief Engineer, Safety Car Heating & Lighting Co. (Re-election), New York
HYDE, ASA P., Chief Engineer and Building Manager, Security Mutual Life Insurance Co., Binghamton
HYDE, ERWIN C., Engineer, Security Mutual Building, Binghamton
JENNINGS, LELAND M., Draftsman, Worthington Pump & Machine Corp., Buffalo
JONES, ALBERT V., Assistant Master Mechanic, H. H. Franklin Manufacturing Co., Syracuse
KARES, EDWARD H., Assistant Purchasing Agent, the J. G. White Engineering Corp., New York
KELLY, JOSEPH M., Sales Engineer, Hyatt Roller Bearing Co., New York
KENT, ROSCOE, Vice President and General Manager, Mercury Engineering Co., Inc., New York
KINDERVATER, JULIUS, Mechanical Superintendent, American Locomotive Co., New York
KRETSCHMER, ERNEST, Machine Engineer, E. W. Bliss Co., Brooklyn
KRIEG, WILLIAM E., Woodhaven, L. I.
LAPKIN, JOHN D., Chief Engineer, American Die & Tool Works, Brooklyn
LORD, JAY W., General Manager, Service Department, Harroids Motor Car Co., Long Island City
LOWRY, EDWARD N., Associate Manager, The Meldrum Semon Greiner Co., Syracuse
MacLEHOSE, FRANCIS, Assistant Superintendent, Waterside Section, New York Edison Co., New York
MADGETT, JOHN H. F., Tool Designer, Induction Motor Department, General Electric Co., Schenectady
MAGGIN, M. DANIEL, Assistant Engineer, N. Y. Rotary Motor Co., New York
MAKIN, ARTHUR T., Designer, Harrison Radiator Corp., Lockport
MARKTHALER, LEO V., Production Department, Kertscher & Co., Elmira
MARTIN, FREDERICK W., Mechanical Engineer, Franklin Supply Co., New York
MAXWELL, HARRY, Emerson Engineers, New York
MEANY, EDWARD A., Tool Designer, Sperry Gyroscope Co., Brooklyn
NORTH, RICHARD A., Mechanical Engineer on Experimental Work, The Barrett Co., New York
PALMER, MERVYN W., Mechanical Engineer, Famous Players Lasky Corpn., Long Island City
PATTERSON, FRANKLIN M., Consulting Engineer, New York
PFANNENSCHMIDT, HENRY G., Machine Designer, J. G. White Engineering Corp., Brooklyn
PIERCE, RAYMOND C., Engineer, Development Department, Linde Air Products Co., New York
PRINGLE, JOSEPH G., Ice Service Company, Inc., New York
RICHARDSON, HARMOND B., Mechanical Engineer, Philippine Vegetable Oil Co., New York
RIKLIN, EDWARD C., Chief Engineer, Buffalo Steam Pump Co., Buffalo
ROBERTSON, MAC T., Manager of Sypho Department, "Automatic" Sprinkler Co. of America, New York
RUGGE, GEORGE J., Mechanical Engineer, Moody Engineering Co. Inc., New York
SAVILLE, ALLEN J., Resident Engineer, Du-Pont Engineering Co., Buffalo
SCHRAEDER, O. A. RUDOLPH, J. W. Sanders Co., New York
SCOTT, CAMPBELL, President, Technical Advisory Corpn., New York
SMITH, GEORGE J., Mechanical Expert, Galena Signal Oil Co., New York
SMITH, HERMAN B., The Babcock & Wilcox Co., New York
STRICKER, EDWIN C., Draftsman & Estimator, W. G. Cornell Co., New York
SULLIVAN, LEO G., Service Engineer, Atlas Steel Casting Co., Buffalo
TERRY, WALTER S., Holtsville, L. I.
WARE, WALTER C., Vice President & General Superintendent, Fay & Bowen Engine Co., Geneva
WEINERT, ROLAND E., Superintendent, Wm. Demuth & Co., Richmond Hill, L. I.
WELLS, FRED S., Engineer, Stephens-Adamson Manufacturing Co., New York
WENDT, EDGAR F., Vice President & Treasurer, Buffalo Forge Co., Buffalo
WEYER, LEO O., General Foreman, Boucher Manufacturing Co., New York
WOERWAG, CARL A., Link-Belt Co., New York
WORTHINGTON, WARREN, President & General Manager, Worthington Manufacturing Corp., Rexleigh
ZAUTNER, NORMAN G., Student Engineer, General Electric Co., Schenectady
ZILBOORG, JAMES M., Editor, Foreign Service Department, Rand, McNally & Co., New York

North Carolina

BARTHOLOMEW, BRADLEY W., Manager, Southern Office, Flynt Building & Construction Co., Charlotte
HARRELSON, JOHN W., Associate Professor Mathematics, North Carolina State College, West Raleigh
HOPE, BERTRAM C., Charge of Engineering Department, Champion Fibre Co., Canton
SPANGLER, SAMUEL, Chemical Engineer, Chemical Construction Co., Charlotte

Ohio

ATKINSON, GEORGE P., Sales Engineer, Allis-Chalmers Manufacturing Co., Cleveland
BERTHEL, CHARLES J., Designing Engineer, Goodyear Tire & Rubber Co., Akron
BRATTIN, CLAUD L., Tool Designer, The Cleveland Metal Products Co., Cleveland
BROWN, GARNET C., Engineer, Armament Section Engineering Division, Air Service, U. S., McCook Field, Dayton
BURLINGAME, JOHN H., Adjuster, Western Adjustment & Inspection Co., of Chicago, Cincinnati
CALDWELL, JAMES R., Inspector of Navy Material, U. S. Government, Cincinnati
CARROLL, FRANK V., Engineer, Leif Lee, Youngstown
CORYELL, WILLIAM C., Consulting Engineer, The General Fireproofing Co., Youngstown
DOPKE, JOHN C., Planning Engineer, Parish & Bingham Corpn., Cleveland
ELHOFF, ERWIN J., Laidlaw Works, Worthington Pump Corpn., Cincinnati
ELLERY, ROBERT M., Production Manager, Toledo Tap & Die Co., Toledo
GLOYD, JAMES R., President, The James R. Gloyd Co., Cleveland
GOODWIN, GEORGE A., Designer, U. S. Air Service, Engineering Division, McCook Field, Dayton
HOLZBAUR, FREDERICK J., Mechanical Engineer, St. Marys Wheel & Spoke Co., St. Marys
HUND, CARL P., Willys-Overland Co., Toledo
JUNKINS, RAYMOND D., Cadet Engineer, Bailey Meter Co., Cleveland
LEWIS, CYRIL E., Results Engineer, The Acme Power Co., Toledo
LEWIS, GEORGE F., Treasurer, The Anderson Rolled Gear Co., Cleveland
LINDEN, CARL E., Chief Engineer, Cincinnati Planer Co., Cincinnati
LOOMIS, ALLEN, Engineer, Willys-Overland Co., Toledo
NEAD, JOHN H., Chief Metallurgist, American Rolling Mill Co., Middletown
NICHTA, JOHN J., Designer & Assistant Engineer, Aluminum Manufacturers Inc., Cleveland
PATTISON, ROBERT C., Mechanical Engineer, Wheeling & Lake Erie Ry. Co., Brewster
ROURKE, WALTER R., Mechanical Draftsman, Brier Hill Steel Co., Youngstown
SCHOENING, FREDERICK C., Designer, International Harvester Co., Akron
SCHUTZ, HAROLD R., Vice President & Engineer, The Northern Engineering Co., Toledo
STANSBURY, G. L., Assistant to President, The Republic Rubber Corp., Youngstown
STERTZBACH, HARRY W., Assistant Chief Mechanical Engineer, Buckeye Steel Castings, Co., Columbus
TERRILL, FRANKLIN E., Tool Designer, The Warner Swasey Co., Cleveland
THIEL, B. C., Assistant Engineer, The C. & G. Cooper Co., Mount Vernon
TISHLER, FRANK J., Assistant to Engineer, The Cleveland Motor Cycle Manufacturing Co., Cleveland

WALKER, FRANK L., Patent Attorney, Dayton
WATSON, C. ROY, Consulting Engineer, Allen Motor Co., Columbus

Oklahoma

HOLMES, WILL K., Superintendent, The Texas Co., Tulsa
PEARL, JAMES W., Chief Engineer, Holcomb Engineering Co., Tulsa

Pennsylvania

ANGELOTTI, GERMANO A., Mechanical Draftsman, Westinghouse Electric & Manufacturing Co., East Pittsburgh
BARTELS, WILLIAM A., Designing Engineer, Hammermill Paper Co., Erie
CALLAWAY, CLARENCE R., Works Manager, Gurney Elevator Co., Honesdale
CAMPBELL, WILLIAM S., Engineer, Link Belt Co., Philadelphia
CAWLEY, G. W., Superintendent of Construction, Schmidt & Ault Paper Co., York
DEIKE, GEORGE H., President, Mine Safety Appliances Co., Pittsburgh
DIMAANO, GREGORIO C., Special Apprentice, Baldwin Locomotive Works, Philadelphia
DIMLER, ERNEST H., Sales Engineer, Bethlehem Foundry & Machine Co., Bethlehem
DUNCAN, WILLIAM Y. JR., Chief Engineer, Lee Tire & Rubber Co., Conshohocken
ERMOLD, ELMER A., Secretary & General Manager, C. Walker Jones, Inc., Germantown, Philadelphia
FRY, HORACE P., Teacher, Mechanical Engineering Department, University of Pennsylvania, Philadelphia
GLEASON, RONALD P., Principal, Technical High School, Scranton
GOODFELLOW, ALFRED, Mechanical Engineer, Lukems Steel Co., Coatesville
GREVE, EDGAR E., Chief & Consulting Engineer, Oil Well Supply Co., Pittsburgh
HAYNES, HARRY S., Salesman, Manning, Maxwell & Moore, Pittsburgh
McCLINTOCK, FRANK S., Chief Engineer, Dravo Doyle Co., Pittsburgh
McFADDEN, BENJAMIN C., Engineer in Charge of Power Plant Section, Aluminum Company of America, Pittsburgh
MORGAN, EARL L., General Foreman, Gun Department, Bethlehem Steel Co., Bethlehem
REBER, ALVIN D., Engineer, The Barrett Co., Latrobe
SCHALLER, ROBERT H., Superintendent of Operation, Pittsburgh By-Product Coke Plant, Pittsburgh
SCHRAMM, C. HENRY JR., Chief Draftsman, A. Box & Co., Inc., Philadelphia
SCHUSSLER, WALTER H., Director & Manager, Huttger Manufacturing Co., Philadelphia
SHMIDHEISER, WILLIAM A., Testing Engineer, Atlantic Refining Co., Philadelphia
SMITH, FRANK T., Manager, Engine & Hoist Department, Otis Elevator Co., Pittsburgh
SMITH, LYMAN M., Assistant Manager, John Lang Paper Co., Philadelphia
SPANGLER, JOHN I., Assistant to General Manager, Read Machinery Co., York
TAWRESEY, JOHN S., Assistant to Chief Engineer, Engineering Department, Standard Steel & Bearings, Inc., Philadelphia
THOMPSON, J. COX, Engineer, The United Electric Co., Lemoyne
TOWNSEND, JOSEPH F., Engineer, The Fuller Engineering Co., Allentown
WALKER, MARCUS A., Mechanical Engineer, Hudson Coal Co., Scranton
WATSON, JAMES S., Manager, Drive Chain Department, Link-Belt Co., Nicetown, Philadelphia
WHITNEY, FRANK E., Treasurer & General Manager, Commercial Truck Co., Philadelphia
WILLOUGHBY, ALFRED B., Owner, St. John Grate Bar Co., Philadelphia

Rhode Island

CARON, EDWARD H., Beamant & Smith Co., Providence
JOHNSON, KENNETH S., Engineer, Sayles Finishing Plants, Saylesville

South Dakota

BOSMA, DIEDRICH J., Chief Engineer, Aberdeen Light & Power Co., Aberdeen

Tennessee

BLAKEMAN, SUTHERLAND R., Superintendent, Water & Light Department, Dyersburg
METZ, WILLIAM R., Mechanical Engineer, Aluminum Company of America, Maryville
SCHILLER, WILLIAM A., Assistant General Manager, Lucey Manufacturing Corp., Chattanooga

Texas

ASKEW, MILES A., Lubrication Engineer, The Texas Co., Port Arthur
HARDING, ROY C., Apprentice Instructor, G. C. & S. F. Ry. Co., Cleburne
MANN, OLIVER, Assistant Master Mechanic, Armour & Co., Fort Worth
USENER, JOHN F., Chief Engineer, Houston Electric Co., Houston

Vermont

HERRICK, ALBERT A., Designer, Jones & Lamson Machine Co., Springfield
ILLINGSWORTH, GEORGE, Mechanical Engineer, Holden-Leonard Co., Bennington
NOWELL, HAROLD T., Mechanical Superintendent, Central Vermont Railway Co., St. Albans

Virginia

HOYER, KNUD, Leading Draftsman, Newport News Shipbuilding & Dry Dock Co., Newport News
SLEEPER, PAUL D., Assistant Plant Engineer, Newport News Shipbuilding & Dry Dock Co., Newport News
WHITE, ALBERT L. JR., Draftsman, Newport News Shipbuilding & Dry Dock Co., Newport News

Washington

CHASE, HOWARD W., President & Manager, Colfax Iron Works, Colfax
PARMLEY, SEBA M., Designing Draftsman, Pacific Coast Coal Co., Seattle

Wisconsin

BANTA, HERBERT D., Chief Engineer, Green Bay Paper & Fibre Co., Green Bay
BURKE, PAUL, Chief Engineer, Northwest Engineering Works, Green Bay
CANAN, WILLIAM D., Assistant Superintendent Engineer, U. S. Army Transport Service, Milwaukee
FEIND, ROBERT F., Engineer, Allis-Chalmers Manufacturing Co., West Allis
FLANAGAN, HERMAN C., Sales Engineer, Allis Chalmers Manufacturing Co., Milwaukee
HOFFMANN, BALTHASAR, President, B. Hoffman Manufacturing Co., Milwaukee
LEUDICKE, ALEXANDER H., Supervising Engineer, Gridley Dairy Co., Milwaukee
NEWHOUSE, RAY C., Engineer, Crushing & Cement Machinery Department, Allis-Chalmers Manufacturing Co., Milwaukee
ORTH, HERBERT D., University of Wisconsin, Madison
RODDY, GUSTAV R., Chief Engineer, Conveying Department, Chain Belt Co., Milwaukee
SPIETH, BENJAMIN, Instructor, University of Wisconsin, Madison
STONE, NORMAN S., Engineering Department, Wausau Sulphate Fibre Co., Mosinee
STRAUS, HENRY L., Sales Engineer, Cutler-Hammer Manufacturing Co., Milwaukee
WATSON, WILLIAM, Assistant General Works Manager, Allis-Chalmers Manufacturing Co., West Allis
WHYTE, ROBERT B., Macwhyte Co., Kenosha

Canada

STUBBS, WM. FREDERICK, Combustion Engineer, Imperial Oil Ltd., Sarnia, Ontario
TOLMAN, CLARENCE M., Electrical Engineer, Moose Mountain, Ltd., Sellwood, Ontario
WHITE, FRANK O., Chief Engineer, Brompton Pulp & Paper Co., East Angus, Quebec

Japan

OKA, MASAKAZU, Sales Engineer, Sale & Fraser, Ltd., Tokyo
SAWAMURA, NOBUE, Assistant Engineer of Technical Department of Japanese Navy Tokyo

South America

BRIGGS, ARTHUR P., Chief Engineer & Works Manager, Fabrica Tejidos Obregon, Barranquilla, Colombia

Sweden

MENTOR, ERNST, Managing Director, The Swedish Separator Works, Inc., Stockholm

CHANGE OF GRADING

PROMOTION FROM ASSOCIATE

Indiana

HANLEY, WILLIAM A., Chief Engineer, Eli Lilly & Co., Indianapolis

PROMOTION FROM ASSOCIATE-MEMBER

California

SIMONSON, GEORGE M., Chief Electrical Engineer, State of California, Department of Engineering, Sacramento

Connecticut

JOHNSON, EUGENE A., Equipment Engineer, Remington Arms Co., Inc., Bridgeport

Illinois

HAY, EARL D., Associate in Engineering, University of Illinois, Urbana
SCHIRMER, GUSTAV, Sales Engineer, Detroit Office, Whiting Foundry & Equipment Co., Harvey

New York

HAMPSON, DONALD A., Engineer, Morgans & Wilcox Manufacturing Co., Middletown
KAELIN, CHARLES G., Supervisor, Body Tool Development, Pierce-Arrow Car Co., Buffalo
PAUL, JOHN S., Mechanical Engineer, American Brake Shoe & Foundry Co., New York

Ohio

WILCOX, JOSEPH S. JR., Chief Draftsman, Parish & Bingham Corp., Cleveland

Pennsylvania

MOORE, MORGAN M., Export Sales Manager, Mesta Machine Co., Pittsburgh

Texas

BAUEREISEN, R. J., Captain, U. S. Army, Construction Service, Q.M.C., Camp Travis

Cuba

BROOKS, HENRY W., President & Manager, Fabricautes Asociados de Marunaria, Habana

PROMOTION FROM JUNIOR

California

FRENCH, CARLETON, Sales Engineer, The Worthington Co., Inc., San Francisco

Massachusetts

HORTON, WILLIAM G., Construction Foreman, General Electric Co., Lynn

Missouri

GALLAWAY, JAMES H., Sales Manager, Kansas City Office, De La Vergne Machine Co., Kansas City

New Jersey

BENCH, ALFRED R., Mechanical Engineer, Taylor-Wharton Iron & Steel Co., High Bridge

New York

BAYLIS ROGER V., Manager, Engineering Sales, Neptune Meter Co., Long Island City
GALLAHER, ALVAN H., Engineer, The Barrett Co., New York
PARKER, KARR, Engineering Manager, McCarthy Bros. & Ford, Buffalo
STONE, MASON A. JR., Secretary, Engineering & Appraisal Co., Inc., New York
WIEBER, GEORGE A., Power Engineer, Utica Gas & Electric Co., Utica

Pennsylvania

HENSHALL, PERCIVAL P., Assistant Professor of Machine Shop Practice, Pennsylvania State College, State College
SHUSTER, MYER M., Superintendent, Shuster Engineering Corp., Philadelphia

Wisconsin

SNYDER, THOMAS A., Assistant Mechanical Engineer, Bucyrus Co., South Milwaukee

SUMMARY

New Applications	362
CANGE OF GRADING	
Promotion from Associate	1
Promotion from Associate-Member	11
Promotion from Junior	12
Total	386